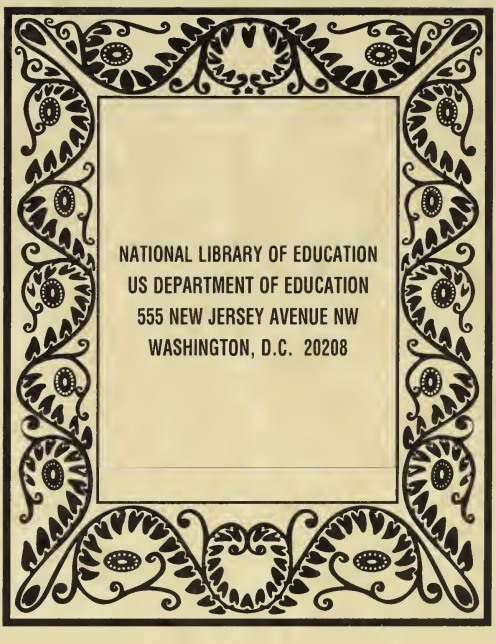

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BIENNIAL SURVEY OF EDUCATION

1928–1930

vol. I

IN TWO VOLUMES

VOLUME I



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Biennial survey of education

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CHAPTER I

SCHOOL ADMINISTRATION AND FINANCE

CONTENTS.—I. School administration, by W. S. Deffenbaugh—II. Public-school finance, by Timon Covert.

I. SCHOOL ADMINISTRATION

By W. S. DEFFENBAUGH

Chief, Division of American School Systems, Office of Education

INTRODUCTION

This is the first time within recent years that a chapter on school administration and school finance has appeared in a biennial report of the Office of Education. In 1914, there was published a chapter on Progress in Educational Administration and in 1923 a chapter on School Finance. Both the subjects of administration and finance have, however, been treated in numerous bulletins of the office and in various chapters on legislation and on city and rural schools that have appeared in the commissioner's biennial reports.

Since no recent chapter devoted wholly to administration and finance has been prepared to show trends, this chapter instead of confining itself to happenings during the biennium, 1928–1930, attempts to show briefly for a number of years the trends in State and local school administration and in school finance.

There being so many topics under the head of administration, and the amount of space allotted for this chapter being limited, only a few topics are included. Since certain phases of the organization and administration of elementary, secondary, and other types of school are treated in other chapters, that part of this chapter treating of administration is confined largely to State boards of education and to local units of school administration.

STATE SCHOOL ADMINISTRATION

Public education in America is a State and not a national function. Neither is it a function of any political division of the State. Although education is a State function, the State may use any of its

political subdivisions—as cities, counties, and townships—as units for administering the schools, or it may create school districts irrespective of such political units. Even if education is a State function, the various types of school districts created by the State are usually allowed great freedom in the management of their schools, especially in the matter of working out details. State control does not necessarily mean that the State has immediate direction and supervision of the schools within any of the school districts. The States delegate much of their authority to city, county, or other administrative units.

At first none of the States exercised much control over the schools, communities being permitted to organize schools and to administer them largely as they pleased. They set up their own qualifications for teachers, determined the length of school term, subjects to be taught, etc. In practice there were about as many school systems in a State as there were school districts.

In the beginning, State departments of education consisted of the State superintendent and possibly a clerk. The State boards of education in the few States having such boards had few powers and duties. The work of the early State departments of education was mostly clerical in character. To-day they are called upon to discharge many highly professional functions, such as the certification of teachers, the selection of textbooks, the preparation of courses of study, the administration of teacher-training schools, the approval of school building plans, etc. Since the enactment of the Smith-Hughes vocational education law, 32 of the State boards of education have been designated as the State vocational education boards.

In order to show trends with respect to the general administrative organization set-up of State-school systems, data are presented regarding State boards of education and the chief State school officer and his staff.

STATE BOARDS OF EDUCATION

Number of State boards.—In the early days of the American public-school system there were few State boards of education, and these few were largely promotional agencies. To some of them was assigned the care of school funds; but upon the whole the early State boards of education were of the advisory and not of the legislative type.

In 1900, 31 States had State boards of education with functions relating to the common schools. In 1910, there were only 32 States that had such boards, but from 1910 to 1920 the number increased to 42. In 1930, there was the same number of States having State boards as in 1920. Within the past decade one State (Wisconsin)

abolished its State board of education, and one State (Iowa) established such board. The six States that do not have general State boards of education are Maine, Nebraska, Ohio, Illinois, Wisconsin, and South Dakota.

Composition of State boards of education.—The composition of State boards of education having functions relative to the general school systems in the several States is shown in the following table:

TABLE 1.—*Composition of State boards of education and method of selection (1930)*

States	Ex officio members							Appointed or elected members					Total ex officio members	Total appointed or elected members	Total number on board
	Governor	Other State political officers	State superintendent of public instruction	President of State university	President of agricultural and mechanical college	President of State normal school	Other education officers	In educational work	Not in educational work	May or may not be in educational work	Appointed or elected by—	Term in years			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alabama	1		1							10	Governor	6	2	10	12
Arizona	1		1	1		2		3			do	(1)	5	3	8
Arkansas			1							7	do	7	1	7	8
California									10		do	4	0	10	10
Colorado		[2] 2	1										3	0	3
Connecticut	1	[3] 1								9	Governor	6	2	9	11
Delaware										5	do	5	0	5	5
Florida	1	[4] 3	1										5	0	5
Georgia	1		1					3		1	Governor	4	2	4	6
Idaho			1						5		do	5	1	5	6
Indiana			1	1	1	1	3	3	2	1	do	4	7	6	13
Iowa										9	do	6	0	9	9
Kansas			1	1	1	3		3			do	2	6	3	9
Kentucky		[2] 2	1									4	3	0	3
Louisiana											[5]		0	11	11
Maryland										7	Governor	7	0	7	7
Massachusetts			1					1		5	do	3	1	6	7
Michigan			1							3	Popular vote	6	1	3	4
Minnesota										5	Governor	5	0	5	5
Mississippi		[2] 2	1										3	0	3
Missouri	1	[2] 2	1									4	4	0	4
Montana	1	1	1							8	Governor	4	3	8	11
Nevada	1		1	1									3	0	3
New Hampshire	1						[6] 2			5	Governor	5	3	5	8
New Jersey										10	do	8	0	10	10
New Mexico	1		1					3		2	do	4	2	5	7
New York									12		State legislature	12	0	12	12
North Carolina	1	[7] 5	1									4	7	0	7
North Dakota		[8] 1	1							3	Governor	6	2	3	5
Oklahoma			1					2		4	do	6	1	6	7
Oregon	1	[9] 1	1									4	3	0	3
Pennsylvania			1							9	Governor	6	1	9	10
Rhode Island	1	[3] 1								7	State legislature	6	2	7	9

[1] Indefinite.
[2] Secretary of state and attorney general.
[3] Lieutenant governor.
[4] Secretary of state, attorney general, and treasurer.
[5] Governor appoints 3 members for term of 4 years; 8 members are elected by popular vote, 1 from each Congressional district for term of 8 years.
[6] 2 members selected by governor from trustees of State university.
[7] Governor, lieutenant governor, secretary of state, treasurer, attorney general, and auditor.
[8] Commissioner of agriculture and labor.
[9] Secretary of state.

TABLE 1.—*Composition of State boards of education and method of selection (1930)*—Continued

States	Ex officio members							Appointed or elected members					Total ex officio members	Total appointed or elected members	Total number on board
	Governor	Other State political officers	State superintendent of public instruction	President of State university	President of agricultural and mechanical college	President of State normal school	Other education officers	In educational work	Not in educational work	May or may not be in educational work	Appointed or elected by—	Term in years			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
South Carolina	1		1							7	Governor	4	2	7	9
Tennessee	1									9	do	6	1	9	10
Texas										9	do	6	0	9	9
Utah			1	1	1					6	do	6	3	6	9
Vermont										3	do	6	0	3	3
Virginia										7	do	4	0	7	7
Washington			1	1	1	1		3			do	2	4	3	7
West Virginia			1					3		3	do	6	1	6	7
Wyoming			1							[11] 6	State superintendent.[10]	6	1	6	7

[10] With approval of governor.
[11] 2 of whom must have been engaged in educational work.

Of the 42 State boards in 1930 8 are composed entirely of ex officio members, namely, Colorado, Florida, Kentucky, Mississippi, Missouri, Nevada, North Carolina, and Oregon. In these 8 States the superintendent of public instruction is a member; in 7, the secretary of state; in 6, the attorney general; in 5, the governor; in 2, the State treasurer; and in 1, the lieutenant governor. In Nevada, the president of the State university is a member of the board. The members of the boards in all these States are State officials. The number of ex officio members varies from 3 to 7. Within the decade 1920–1930, none of the States that now have ex officio State boards of education changed the size of their boards.

Eleven of the 42 State boards have no ex officio members. The boards in 9 of the 11 States are appointed by the governor, namely, California, Delaware, Iowa, Maryland, Minnesota, New Jersey, Texas, Vermont, and Virginia; in one State, New York, they are appointed by the State legislature; in Louisiana the governor appoints three members, and the people elect eight additional members.

The following table contains a list of the States that had no ex officio State board members in 1920, and a list that had no such boards in 1930.

TABLE 2.—*State boards having no ex officio members, 1920 and 1930*

States	Number of members, 1920	States	Number of members, 1930
California	7	California	10
Delaware	5	Delaware	5
Maryland	7	Maryland	7
Minnesota	5	Minnesota	5
New Jersey	8	New Jersey	10
New York	12	New York	12
Vermont	5	Vermont	3
		Iowa	9
		Louisiana	11
		Texas	9
		Virginia	7

Table 3 contains a list of the States in which there were partly ex officio State boards of education in 1920 and in 1930, and shows the number of ex officio and of appointive or elective members on each board:

TABLE 3.—*State boards—some members ex officio, some appointed or elected, 1920 and 1930*

States	Number of members, 1920			States	Number of members, 1930		
	Ex officio	Appointed or elected	Total		Ex officio	Appointed or elected	Total
Alabama	2	6	8	Alabama	2	10	12
Arizona	5	3	8	Arizona	5	3	8
Arkansas	1	7	8	Arkansas	1	7	8
Connecticut	2	9	11	Connecticut	2	9	11
Georgia	2	4	6	Georgia	2	4	6
Idaho	1	5	6	Idaho	1	5	6
Indiana	7	6	13	Indiana	7	6	13
Kansas	6	3	9	Kansas	6	3	9
Georgia	1	5	6	Massachusetts	1	6	7
Massachusetts	1	6	7	Michigan	1	3	4
Michigan	1	3	4	Montana	3	8	11
Montana	3	8	11	New Hampshire	3	5	8
New Hampshire	1	5	6	New Mexico	2	5	7
New Mexico	2	5	7	North Dakota	2	3	5
North Dakota	2	3	5	Oklahoma	1	6	7
Oklahoma	1	6	7	Pennsylvania	1	9	10
Pennsylvania	1	6	7	Rhode Island	2	7	9
Rhode Island	2	6	8	South Carolina	2	7	9
South Carolina	2	7	9	Tennessee	2	9	11
Tennessee	1	9	10	Utah	3	6	9
Utah	3	6	9	Washington	4	3	7
Virginia	3	5	8	West Virginia	1	6	7
Washington	4	3	7	Wyoming	1	6	7
West Virginia	1	6	7				
Wisconsin	2	8	10				
Wyoming	1	6	7				

Ten years ago there were 9 wholly ex officio State boards of education; in 1930 there were 8; in 1920 there were 26 partly ex officio boards; in 1930, 23; in 1920 there were 7 boards with no ex officio members; in 1930 there were 11 such boards.

The following table is presented to show trends with respect to the composition of State boards of education for the past 40 years:

TABLE 4.—*Types of State boards of education by decades, 1890 to 1930*

Type of State board	Number of States having each type of board for the years 1890 to 1930				
	1890 [1]	1900 [1]	1910 [1]	1920	1930
Wholly or mostly ex officio	20	21	20	13	12
Wholly or mostly appointed or elected	9	10	12	29	30
No State boards	19	17	16	6	6

[1] Data from the Organization of State Departments of Education, by Henry E. Schrammel. Ohio State University Press, Columbus.

The following table shows the official position held by the ex officio members in wholly or partially ex officio State boards in 1920 and in 1930:

TABLE 5.—*Ex officio members*

Members	Number of States, 1920	Number of States, 1930
Governor	18	15
Other State political officers	13	11
State superintendent of public instruction	30	27
President of State university	6	6
President of agricultural and mechanical college	4	4
President of one or more State normal schools	4	4
Other educational officers	1	2

Authorities on school administration have for many years advocated the appointive or elective type of State board rather than the ex officio type. During the decade 1910 to 1920 the movement was strongly toward the appointive type of board and it was thought by some that within a comparatively few years all the ex officio or even partly ex officio boards of education would be abolished and the appointive type substituted, but for some reason, or for various reasons, the movement while continuing has been slow since 1920.

State school survey commissions or survey staffs have uniformly condemned the ex officio State board. Since 1920 two of the States in which surveys have been made have abolished the ex officio boards and have created appointive boards. These two States are Texas and Virginia. The Texas survey commission said that while ex officio boards had a place in the early history of American education, they are now becoming obsolete and will some day be held as archaic as they are crude and primitive in form; that the ex officio board is not definitely responsible for educational policy, and that made up of men elected by the people and responsible to them for other

offices and duties, its members can not afford to give much time or thought to education.

In 1927 when the educational survey was made of the State of Virginia there was an ex officio State board of education. The survey staff made the following observations on that type of school board:

> Under its present organization the State board of education is not accountable for its acts to the people either through appointment by the governor or election by the qualified voters of the Commonwealth. Membership on the State board of education is incidental to other official duties in the case of the governor and the attorney general. The State superintendent, while elected by the qualified voters of the Commonwealth, is responsible for his acts to the State board of education, of which he is an ex officio member and president, which board is not under the control of the people.
>
> Educational institutions have representatives on the State board of education. These representatives are nominated for membership by institutions dependent upon the general assembly for their budget and are selected from a list of nominees by the senate, which body is a determining factor in fixing the budget of these public educational institutions.
>
> As at present constituted the State board is likely to represent the dominant political party of the State and the institutional aspirations of its higher schools. It should represent the people of the entire Commonwealth, and should, therefore, be a lay board rather than a professional board.
>
> An even number of members on such a board is undesirable because of the possible deadlock on important questions of educational policy.
>
> It is a well-established administrative principle that no person whose full-time official position is within the gift of a board should be a member of the board which appoints him.
>
> The State superintendent should not be a member of the board. It is a fundamental administrative principle that one who is to execute a policy should not be a member of the board which determines the policy.

Size of State boards.—The size of State boards of education varies from 3 to 13 members. Within the decade 1920–1930, 9 States have increased the size of their State boards: Alabama, from 8 to 12 members; California, from 7 to 10; Louisiana, from 6 to 11; New Hampshire, from 6 to 8; New Jersey, from 8 to 10; Pennsylvania, from 7 to 10; Rhode Island, from 8 to 9; Texas, from 3 to 9; Tennessee, from 10 to 11. Three States, upon the other hand, have decreased the size of their boards of education within this decade: Delaware, from 5 to 4 members; Vermont, from 5 to 3; and Virginia, from 8 to 7 members. Iowa, which had no State board of education in 1920, established a board of 9 members, and Wisconsin abolished its board of 10 members.

In 1920 the median number of members was 7 and the mode was 7; in 1930 the median and the mode were still 7. Before 1920 the median size of boards was somewhat less; in 1900, the median was 5 and the mode 3; in 1910, the median was 6.5 and the mode 3.

TABLE 6.—*Size of State boards of education*

Number of members	1920			1930			Total States	
	Type of board and number of States having each type			Type of board and number of States having each type			1920	1930
	Wholly ex officio	Partly ex officio	All appointed or elected	Wholly ex officio	Partly ex officio	All appointed or elected		
3	6			5		1	6	6
4	1	1		1	1		2	3
5	1	1	3	1	1	2	5	3
6		4			2		4	2
7	1	7	2	1	6	2	10	9
8		5	1		3		6	3
9		3			4	2	3	6
10		2			2	2	2	3
11		2			2	1	2	4
12			1		1	1	1	2
13		1			1		1	1

Term of office.—Obviously the terms of office of ex officio members who are State officials terminate at the expiration of the term for which they were elected. The terms of the ex officio State officers are usually two or four years. The terms of appointive members vary from two years to indefinite tenure in one State, Arizona.

The following table shows the length of term of appointive members for the years 1920 and 1930:

TABLE 7.—*Tenure of appointive members of State boards of education*

Length of term in years	Number of States		Length of term in years	Number of States	
	1920	1930		1920	1930
2	2	2	7	2	2
3	1	1	8	1	2
4	7	7	12	1	1
5	7	4	Indefinite	1	1
6	10	14			

Functions of the State boards of education.—The early State boards of education were largely of the advisory type. To-day many of them have large and responsible duties. There is, however, little uniformity in the powers and duties of the various State boards of education, varying from the advisory type, as in Massachusetts, to the legislative type with practically complete control of the State school system as in Delaware. The tendency has been to increase the functions of State boards and to centralize more authority in the State departments of education.

The generally accepted principles that more authority be centralized in State boards of education, that the function of such boards should be chiefly legislative and policy making in character, that

there should not be a multiplicity of State educational boards, and that the State superintendent of public instruction should be the chief executive officer of the State board have been emphasized in the State school-survey reports.

For example, the Institute for Government Research, in its Report on a Survey of the Organization and Administration of the State of North Carolina,[1] would abolish many of the existing boards and transfer their functions to the State board of education. Among the recommendations contained in the report upon this point are the following:

> Abolish the State board for vocational education and transfer its functions to the State board of education when the constitutional change is made.
>
> Abolish all independent boards of trustees for the teacher-training schools and vest the management and supervision of such schools in the proposed State board of education. Pending constitutional change, create one board of nine members appointed by the governor for all teacher-training institutions.
>
> When the proposed State board of education is created, abolish the boards for the two schools for the blind and deaf and vest management and supervision in the State board.
>
> Abolish the committee on high-school textbooks and the textbook commission and transfer their functions to the proposed State board of education.
>
> Abolish the library commission and the board of trustees of the State library and transfer their functions to the department of education. Transfer the North Carolina Historical Commission and Legislative Reference Library to the department of education.
>
> Transfer all clerical, executive, and stenographic work of the various professional registration boards to the department of education, where all records can be centralized in one bureau.

The State School Survey Commission of New Jersey, in recommending that the State board of education be reorganized as a commission on public education, says that such commission should have general management and control of the educational system of the State through the formulation of policies, approval of procedures, the appraisal of results, and that the board of examiners should be abolished and the approval of certification policies be placed wholly with the commission on public education.

The West Virginia survey staff recommended that the State board of education should have general control of all the educational interests of the State with the State superintendent of schools as the chief professional and executive officer of the school system. "In this way," according to the survey staff, "the State may achieve the unity and centralization of authority which are most sorely needed in the present system of education in West Virginia."

---

[1] Report of a Survey of the Organization and Administration of the State Government of North Carolina. Washington, D. C., Institute for Government Research of the Brookings Institution, 1930.

The survey staff of West Virginia in a summary of its findings, says:

> A review of the findings in regard to the power which the State is exercising in the control of education in West Virginia leads us to conclude that the various representatives of State control have and exercise about the proper amount of authority that the State should exercise. This authority, however, is in the hands of different boards or representative bodies, namely, the State board of education, the board of governors of the West Virginia University, the State board of control, and the State superintendent of free schools.
>
> The influence which the State should exert in the control of educational affairs is seriously impaired by the divided authority, the duplication of responsibility, and the lack of coordination inherent in any such plan of organization. Under such an organization it would be the rarest of accidents for any State to secure anything approaching a fixed and unified policy of education. There is no evidence to show that West Virginia is an exception to the rule. The division of financial control between the State board of education and the board of control tends to duplication of functions, rivalry, and interference with State educational policies. The duplication of responsibility between the State board of education and the State superintendent makes for relegation of responsibility and vacillation of action. The division of authority over separate units of the educational system such as we find in the board of governors and the State board of education is already presenting difficulties over matters of common interest such as standards of teacher-training and entrance requirements.

The Texas School Survey Commission made the following recommendation:

> A new State board of education for Texas should be assigned by statutory law a number of administrative duties usually given to State boards, and those now given direct to the State superintendent should be transferred to the board. Not that the actual carrying out of these duties will not fall to the superintendent, but they properly and legally do so only by being delegated to him by the board. This is necessary in order to place final responsibility upon the board for the entire educational program. The board is, in no case, an administrative or executive entity; but it is, through its chosen executive, ultimately responsible for all administrative policy.

Legislation within the biennium with respect to the powers of State boards of education illustrates the tendency toward increasing the powers and duties of such boards. The Legislature of California, for example, provided that the State department of education shall be administered through the State board of education, which shall be the governing and determining body of the department, and that the State director of education shall be the executive officer of the State board. It also authorized the State board of education, upon recommendation of the State director of education, to establish such divisions in the State department as in the judgment of the board are necessary. It also empowered and directed the State board of education to elect on nomination of the State director of education, the presidents and principals of teachers colleges and other schools governed by the State department; to take jurisdic-

tion of any district high school that is not supported in whole or in part by district taxes and to appoint a qualified person to exercise immediate supervision over such schools, and to fix standards for school sites.

In Delaware the legislature authorized the State board of education, after consultation with the local board of school trustees, to determine the number of grades to be taught in a given school.

The Legislature of New Mexico directed the State board of education to set up a bureau of textbook distribution and property accountant to contract with and order from publishers textbooks for the use of first and second grade pupils in the public schools and provided that all costs of such textbooks be paid out of the State common-school fund.

In Oklahoma the legislature abolished the State board for vocational education and vested its powers and functions in and under the control of the State board of education and designated the State superintendent of public instruction as the director of vocational education, and it vested in the State board of education the matter of examination and certification of all teachers, abolished the county and city examining boards, and repealed the county and city certification law.

In Michigan the county teachers' certification law was repealed and teacher certification was centralized in the State superintendent of public instruction and the State board of education.

Minnesota vested teacher certification solely in the State board of education.

The State board of education of Texas was given the following additional functions and duties: (1) To consider and report biennially to the governor on the financial needs of the public free schools; (2) to recommend to the governor concerning proposals for the establishment of new educational institutions; (3) to consider and report on the financial needs, scope, and work of State institutions of higher learning, and to recommend such changes in their courses of study as the needs may warrant with especial reference to elimination of any needless waste or duplication of work; (4) to select a textbook committee of five experienced and active educators in the public schools of the State to examine books submitted for adoption and to recommend thereon to the State board; (5) to consider the athletic necessities and activities of the public schools and to report biennially to the governor the proper legal division of time and money to be devoted to athletics; (6) to prescribe rules and regulations for the certification of teachers and for examining applicants for such certificates in accordance with the State laws. (U. S. Office of Education, Bulletin, 1931, No. 20, "Review of Educational Legislation," by Ward W. Keesecker.)

THE STATE SUPERINTENDENT OR COMMISSIONER OF EDUCATION

Method of selection.—For years authorities on State school administration have been recommending that the State superintendent of public instruction should be appointed by the State board of education. These recommendations have, however, received but little consideration, judging by the number of States in which the State superintendent is still elected by the people. In 1890, this official was elected by popular vote in 29 States; in 1910, in 32 States; in 1920, in 34 States, and in 1930, in 33 States. In Idaho and Wyoming where there are two State officials, a State superintendent of public instruction and a commissioner of education, the superintendents are elected by the people and the commissioners are appointed by the State boards of education.

In 1890, according to Dr. Henry E. Schrammel's The Organization of State Departments of Education, five methods of selecting the chief State school official were employed, namely, election by popular vote, appointment by the governor, appointment by the State board of education, appointment by the State legislature, and appointment by the supreme court. By 1920, the number of methods of selecting the chief State school official had been reduced to three—election by popular vote, appointment by the governor, and appointment by the State board of education. In 1930, these same three methods obtain.

Of these methods, appointment by the State board of education made the greatest proportional gain from 1890 to 1930, as may be noted from the following table, but even now the State superintendent of public instruction is appointed by the State board in only eight States.

TABLE 8.—*Method of selecting chief State school officers*

Method employed	Number of States			
	1890 [1]	1910 [1]	1920	1930
Election by popular vote	29	32	34	33
Appointment by the governor	[2] 8	[3] 10	6	7
Appointment by the State board	3	4	[5] 8	[5] 8
Appointment by the legislature	3	1	----	----
Appointment by the supreme court	[4] 1	----	----	----
No chief school official	2	1	----	----
Unorganized territory	2	----	----	----

[1] Data from The Organization of State Departments of Education, by Dr. Henry E. Schrammel.
[2] 1 Territory.
[3] 2 Territories.
[4] A Territory.
[5] 10 States, including commissioners of education in Idaho and Wyoming.

Within the decade Virginia changed from popular election to appointment by the governor. Louisiana, by a constitutional amend-

ment in 1921, changed from election by the people to appointment by the State board, but in 1922 the constitution was again amended and provided for the election of the State superintendent by popular vote.

State school survey commissions have uniformly condemned the elective method and recommended appointment by the State board. The following recommendation made by the Virginia State school survey staff is typical of the recommendation contained in other State school survey reports on the selection of the State superintendent of schools:

> It has been demonstrated repeatedly that the political method is not the proper one for securing expert service of any type. At the time that the office of State superintendent was created in our American commonwealth it was a clerical and statistical position, and not one of the expert character which it now has become. It should be removed from partisan politics. Candidacy to the office should not be limited to the State. The superintendent should not be placed in a position where political considerations may influence his decisions.

Term of office.—From 1890 to 1920 the tendency was to increase the length of term for which the chief State school officer was elected or appointed, but from 1920 to 1930 only one State increased the term, Nebraska having changed from 2 to a 4-year term. The tendency may be noted from the table that follows:

TABLE 9.—*Term of office of chief State school executives*

Length of term in years	Number of States				Length of term in years	Number of States			
	1890 [1]	1910 [1]	1920	1930		1890 [1]	1910 [1]	1920	1930
1	2	1	2	2	5		1	2	2
2	20	21	14	13	6			1	1
3	5	3	1	1	Indefinite	1	2	4	[2] 4
4	15	19	24	25					

[1] Data from "The Organization of State Departments of Education," by Dr. Henry E. Schrammel.
[2] Six, including commissioners of education in Idaho and Wyoming.

Staff members.—Before the decade, 1910–1920, State departments of education consisted for the most part of the State superintendent and a few clerks. In 1910, the median number of members of the State school department was 5; in 1920, 19; and in 1930, 28 members. In 1910 the size of staff varied from 1 to 265 members; in 1920, from 8 to 437; and in 1930, from 8 to 594. In 1910 the total number of members for all State departments of education was 534; in 1920, 1,614; and in 1930, 2,526. The per cent of increase in number of members for the decade, 1910–1920, was 202.2, and for the decade, 1920–1930, the per cent of increase was 56.5.

The increase or decrease in membership in each of the State departments of education for the decade, 1920–1930, is shown in the following table:

TABLE 10.—*Number of staff members in each State department of education* [1]

States	1920	1930	States	1920	1930
Total for United States	1,614	2,526	Montana	10	14
			Nebraska	19	25
Alabama	35	54	Nevada	11	15
Arizona	14	11	New Hampshire	20	20
Arkansas	14	32	New Jersey	34	67
California	46	169	New Mexico	14	12
Colorado	10	11	New York	[3] 437	[4] 594
Connecticut	96	134	North Carolina	31	62
Delaware	8	38	North Dakota	10	16
Florida	17	24	Ohio	27	74
Georgia	13	29	Oklahoma	14	41
Idaho	15	[2] 15	Oregon	11	8
Illinois	32	60	Pennsylvania	[5] 70	171
Indiana	19	38	Rhode Island	13	18
Iowa	17	14	South Carolina	27	28
Kansas	15	37	South Dakota	17	17
Kentucky	19	25	Tennessee	15	-------
Louisiana	25	30	Texas	54	70
Maine	19	20	Utah	14	16
Maryland	13	33	Vermont	10	14
Massachusetts	114	159	Virginia	22	51
Michigan	32	47	Washington	20	26
Minnesota	44	54	West Virginia	14	23
Mississippi	23	26	Wisconsin	31	41
Missouri	19	26	Wyoming	10	17

[1] National Education Association, Research Division, Staff and Salaries of State Departments of Education. (Studies in State educational administration. No. 9. 1931.)
[2] Excludes curriculum advisor and high-school inspector who are shared by the University of Idaho and the State department.
[3] Not counting unskilled laborers and janitors.
[4] Includes unskilled laborers and janitors.
[5] Except stenographers, clerks, and messengers.

A comparison of the number of professional staff members of State departments of education listed in the directories of the Office of Education for the years 1925 and 1930 shows that the additions to the staff have been made in many fields, especially in secondary, elementary, physical, adult, and special education; and in library work, research and statistics, teacher training and certification, and school buildings.

LOCAL SCHOOL ADMINISTRATION

Although it is the function of the State to educate its children, the schools are administered through smaller units under the control of boards of education. There are various types or classes of these local units, such as the county, city, town, township, common-school district, consolidated, central, community, joint union graded, union high, county high, and township high. The units may, however, be classified in general as county, city, town, township, and district.

Authorities on school administration are generally agreed that the local unit for the administration of schools should be larger than the small district found in many of the States, but they are not

entirely agreed upon what the larger unit should be. Some favor the county and others what they term the "community unit." For most of the States in which state-wide educational surveys have been made, the commissions or survey staffs have recommended the county unit; in several States the survey commissions have recommended the community unit. The trend in practice has been toward two types of larger units, the county and the consolidated school district.

THE COUNTY

Within the decade, the movement to organize the schools with the county as the unit of administration has gone forward to some extent, but no State has recently reorganized its schools on a state-wide county unit plan. Several States have enacted optional county unit laws, but these are usually applicable only to certain classes of counties. In 1927 the Legislature of Arkansas authorized counties with 75,000 or more population, upon petition of 100 or more electors, to question whether the school districts outside of cities of more than 10,000 population shall be formed into one county school district. If a majority vote in favor of a county district, all the schools outside of cities having a population of more than 10,000 shall be under the control of the county board of education.

In 1929 the Legislature of Arkansas authorized an election in all but two counties by popular vote to consolidate all local and special school districts into one school district embracing all the territory of the county, but the supreme court of the State held that this act of 1929 was unconstitutional.

The Legislature of Texas in 1923 authorized counties having a population of 100,000 or more to adopt by election the county unit form of school administration. The counties eligible to adopt the county unit system under the privisions of this act are Bexar, Dallas, El Paso, Harris, and Tarrant. Up to the present time none of these counties appears to have adopted the provisions of this act. In 1927 the legislature of the State vested in county boards of education in counties containing more than 1,100 square miles and having a population from 40,000 to 100,000 complete control of the schools in these counties. This act apparently applies only to Williamson County. It also vested in county boards in counties having 210,000 or more population authority to subdivide or consolidate school districts. This act applies to Dallas County only, which under this act has developed a county unit system. In 1929 a law was enacted that provided for the creation of a common-school district to include the whole county of Terrell.

In 1925 the Legislature of Montana authorized counties, upon petition of 20 per cent of the electors in third-class school districts, to vote on the question of establishing a "county unit system for rural schools." The county rural-school district is, however, divided into four local districts administered by local trustees for the purpose of management, control and custody of property.

In 1929 the Legislature of Washington authorized the formation of county-school districts in counties having but one high school by providing that when 10 per cent of the electors in any county petition therefor, and when such petition is approved by both the superintendent of schools of said county and by the State superintendent, the county commissioners shall submit the question to the electors of the county at the next general election. If a majority vote in favor of a county-school district, such district shall be formed, and the board of county school directors shall be composed of three members, one from each of the county commissioners' districts, and shall be chosen by the electors of the county at the general elections.

The Legislature of Minnesota in 1921 vested in a county board of education the management and maintenance of schools in unorganized territory in counties where such territory is situated, and in 1925 it authorized the county board of commissioners to dissolve any common or independent school district when petitioned by a majority of the voters of the district and upon the approval of the county superintendent, and provided that any district having less than 10 scholastics may be automatically dissolved by the county board of commissioners and become a part of the unorganized territory.

In 1927 the Legislature of Minnesota authorized any county with fewer than five school districts and containing a school district with 10 or more townships which comprise more than one-half of the area of the county to form, upon approval of the electors, a county-school district. In 1929 the legislature of the State authorized any county having less than seven school districts to elect to consolidate such districts into one county-school system.

Within the decade the attempts made in several other States to secure legislation for some form of county-unit system failed. For example, the Legislature of Missouri in 1922 enacted that the rural schools of the State be placed under county-unit organization, but soon after the passage of the act a referendum petition was circulated, the necessary number of signatures obtained, and the act was accordingly referred to the people who rejected it.

That there is a widespread interest in the county unit of administration is evidenced by the fact that practically every school survey report issued since 1920 states that the county is the most desirable unit of school administration for the States in which educational surveys have been made. Several reports, however, recommend the

community unit.[2] Recently the Oregon Education Plan Committee made the following recommendations regarding a larger unit of administration for that State:[3]

Objective (1935).—No independent-school units in operation which have enrollments of less than 500 in grades 1 to 12.

Recommendations.—1. That this association place itself on record in favor of the large unit organization as the most reasonable unit of school administration to adopt for the improvement of the school situation in Oregon at the present time.

2. That as a step toward the large unit there be created in each county not now operating county units, a county board of education, this board to appoint a county superintendent and such supervisors and assistants as will guarantee effective administration and supervision of the schools within the county. The county superintendent would be chosen on the basis of professional training and administrative ability, at such salary as would be necessary to attract a thoroughly competent individual.

3. That both the profession and the public be completely informed as to the working and effectiveness of the county unit both in Oregon and in other States.

4. That the large unit be considered as an intermediate step toward a State system of schools.

The county superintendent of schools.—Although the county is the unit of administration in comparatively few States, 39 of the 48 States provide for county school superintendents. The States that do not have such superintendents are the six New England States, and the States of Delaware, Nevada, and New York. In many States the administrative duties of the county superintendent are comparatively few, their duties being largely of an advisory and supervisory nature; but through legal enactments the tendency has been to increase the administrative duties of county superintendents by giving them more authority in such matters as the enforcement of the compulsory attendance laws, the appointment of assistant county superintendents and of supervisors, the apportionment of school funds, and the preparation of the budget. The authority to grant teachers' certificates has been gradually taken away from the county superintendent. At the present time the laws of only a very few States authorize the county superintendents to issue certificates of any grade.

The tendency has been to strengthen the office of county superintendent through legislative enactments authorizing the employment of assistant county superintendents, county school supervisors, and clerical assistance. The number of States which by law allowed assistant county superintendents increased from 3 States in 1880 to

[2] See United States Office of Education Bulletin, 1930, No. 35, School Administration in State Educational Survey Reports.

[3] Report of the Oregon Education Plan Committee. Oregon State Teachers' Association, 1930.

7 States in 1909, and to 32 States in 1930. In 1905 none of the State school laws made provision for the employment of county school supervisors. In 1930 there were 15 States that made such provision. In 1905 there were only two States, Louisiana and Maryland, which by law authorized the employment of clerical assistance for the county superintendent. At the present time such assistance is authorized in 32 States.[4]

In a majority of the States, the county superintendent has been from the beginning and still is elected by the people. At present this officer is elected by the people in 25 States; he is appointed by the county board in 9, the State commissioner of education in 1, the township school directors or trustees in 2, the representatives of school districts in 1, and the county court in 1. Since 1920 only one State has changed its method of selecting the county superintendent, Virginia having changed from appointment by the State board of education to appointment by the county, or divisional, board of education.

Although authorities on school administration and State school survey commissions have been recommending that county superintendents be appointed by a county board, there has been no recent legislation making the county superintendency an appointive office. The following quotation from the Texas State school survey report regarding the election of county superintendents by the people is typical of similar recommendations contained in other State school survey reports:

> It is unfair to the educational interests of country children that the highest educational officer who is directly serving them should be chosen by popular election when experience has demonstrated that the deliberations of a representative board, such as the county-school trustees, as a rule result in the selection of individuals who are better prepared to carry the responsibilities of the office. Texas, in common with many other States, needs such provisions as shall make for the choice of well-prepared men and women for the administration and supervision of the rural schools. Popular election sometimes results in the election of such persons, but it is not a system especially well designed to secure that result.

THE CONSOLIDATED SCHOOL

One method of enlarging the unit of administration is by means of the county unit; another method is that of consolidating two or more school districts into one administrative unit. This latter method is employed in many of the States, especially in those States having the district system.

[4] Newsom, N. William. The Legal Status of the County Superintendent. A doctor's dissertation. School of Education, New York University.

The number of consolidated schools has been increasing rapidly. From 1920 to 1930 the number of such schools increased from 11,890 to 17,004, and the number of 1-room schools decreased from 187,948 to 153,306. These figures, however, do not show the number of larger school districts that have been formed through the consolidation of two or more districts.

In some States the term "consolidated school" is applied when two or more schools are abandoned and a larger one organized to take their places. In those States having the county, town, or township unit of administration the consolidation of small schools within the unit does not result in a larger unit of administration and support. The unit of administration and support remains the same whether there are twenty 1-room schools or whether all these are brought together into one plant. In those States in which the small school district is the unit of administration and support, the consolidation of two or more of these districts does result in a larger unit. The ultimate size of the unit depends upon the number of districts entering into the consolidation. It would be possible for all the districts within a country to consolidate and thus form a county system. For example, Roscommon County, Mich., has almost effected a county-school system by the consolidation of township-school districts. There are only two school districts in the county at present as compared with six districts three years ago when an active campaign for consolidation began.

The following information compiled from the reports of State superintendents of public instruction indicates the trend in the matter of consolidating school districts. In Arkansas, there were in 1920, 5,118 school districts; in 1925, 4,866; and in 1928, 4,598, making a reduction of 520 districts within the 8-year period. The State superintendent says in his biennial report for 1926–27, 1927–28: "It has been the policy of the department to recommend to superintendents and boards of education a careful study of the entire county with a view of a future county-wide program of consolidation, a plan that offers a maximum amount of school efficiency to all the children at a minimum cost."

In 1928, there were in Kansas 179 consolidated districts which had been formed from 522 districts.

In Michigan, the rural agricultural school act giving special State aid to consolidated schools for both maintenance and the transportation of pupils became operative in 1919. The State superintendent reported in 1929 that during the 10 years that this law had been in operation, 61 consolidated districts meeting the State requirements for special aid had been organized. The 61 consolidated schools replaced three hundred and eight 1-room schools.

In the State of New York, it is stated in the report of the commissioner of education of that State for the year 1929–30 that—

The organization and establishment of central-school districts in cooperation with and at the request of the majority of the voters in the districts affected have made steady progress. During the period July 1, 1928, and June 30, 1929, 13 central schools were organized. The total number of such districts in the State July 1, 1929, was 56.

According to the procedure outlined by the State education department on the organization of central rural districts—

A central-school district should consist of a group of existing districts around a natural and logical center, and such central district should include all the territory that reasonably may be included therein. The social and economic community interests and activities of the people will be an aid in determining the extent of the territory that should be included in such central district. Central-school districts must possess resources in population and taxation sufficient to insure well-organized graded instruction in both elementary and high school subjects.[5]

The State commissioner of education says that three years' experience with the central rural school proves that it has the following advantages over the older organization of schools in rural areas:[6]

1. *Better teaching.* The central rural school commands a better teacher for the same money than is attracted to the average one or two teacher school.

2. *Better supervision.* (*a*) The district superintendent with four to eight central districts has a much better opportunity than he has with 35 to 75 different districts. This applies to his influence both on teachers and trustees or board members. (*b*) The central school gives each teacher daily access to a well-trained principal, whereas under the common-school district organization there are now 7,500 teachers who see their supervisory officer on the average less than five times a year. (*c*) It is possible to provide special teaching-supervisory services for central schools, such as music and art teachers, whereas it is not feasible to provide such services for a widely scattered 1-teacher school organization.

3. *Richer social life for adolescent pupils.* Boys and girls in the teens need a wide acquaintance with boys and girls of their own age; such association is part of their education. The larger school gives wider opportunity for dramatics, athletics, public speaking, clubs, and every kind of organized activity.

4. *A broader high-school curriculum.* The central district provides transportation free to the individual pupil; it draws pupils into the central school at the beginning of the seventh grade before they have felt the urge to drop out of school; therefore, the central school has a much larger high-school enrollment than the village school in the same community would have if standing alone. In fact, centralization usually increases the high-school enrollment from 50 to 100 per cent. This increased enrollment draws larger State funds and so makes possible a richer curriculum or better teachers or both. The

[5] Central Rural Schools. University of State of New York, Albany, N. Y., Bulletin No. 882, August, 1927.

[6] Twenty-Sixth Annual Report of the Education Department of the State of New York, 1930.

25 per cent building quota enables the central district to provide building space for activities that could not be provided for without such a quota. Both these factors contribute to a better junior and senior high school offering than can be expected from the union free-school district that has to depend upon tuition pupils for its extra revenues.

5. *Rural control.* So long as the common-school districts depend upon contract with village schools, or upon the tuition system for educating their children of high-school age, they will have to accept a school planned by others, not always in sympathy with rural interests. In the central rural-school district, the farming or other rural elements of the population have their representatives on the board, and through them have a voice in determining how their money should be expended and the kind of school they shall have. The central rural school turns, for the first time in the history of the State, the control of secondary education in rural areas to the people most vitally interested.

In Oklahoma, the number of independent districts increased during the biennium 1928–1930 from 351 to 355, and the number of rural districts decreased from 4,644 to 4,578. The State superintendent in his report for 1928–1930 says regarding this change:

> The decrease in the number of the rural districts is due to several causes. As the towns become incorporated and the high schools located therein are fully accredited for four years of work, these districts automatically become independent. Several of these districts enter into each consolidated district that is organized and into each union graded organization. Rural districts are attached to adjacent independent districts and to existing consolidated and union graded districts. These changes leading to a decrease in the number of districts and to an improvement in the organization and efficiency of the schools attended by the children are evidences of healthy growth in the rural schools.

He also says:

> Better roads and rapid modes of transportation have rendered obsolete the little community of past decades, and have substituted a larger community, generally surrounding a town. To this town the people go for trading, entertainment, and religious worship. It is logical that the school community should also be enlarged to meet the demands of the new social organization.

The foregoing data indicate a movement toward the consolidation of districts, but judging from the number of school districts still remaining in most of the States the movement toward district consolidation has resulted in comparatively few large administrative units, as may be noted from the following data compiled from the recently published reports of 11 State departments of education.

In Iowa there are 402 consolidated districts, 1,015 school townships, 652 independent, city, town, and village districts not consolidated, and 2,802 rural independent districts. The total number of districts in the State is 4,871, under the control of 21,147 school directors. In Michigan there are 6,873 school districts. Of these, 125 are city, 655 graded, and 6,093 ungraded school districts. Kansas has 7,139 school districts maintaining 1-teacher schools. In Illinois there are

10, 142 districts having 1-room country schools. Of the 7,707 school districts in Minnesota, 7,203 are ungraded elementary-school districts. In Pennsylvania, in which the city, the borough, and the township are the units of administration, there are 2,581 school districts, 2,345 of which are fourth-class districts—townships and boroughs having under 5,000 population. Texas has 6,839 common-school districts. In Oklahoma there are 4,578 rural-school districts and 351 independent districts. The total number of school districts in Nebraska is 7,251. Missouri has 7,758 rural-school districts. Of these 7,352 have one teacher; 317, two teachers; 43, three teachers; and 46 have four or more teachers. In South Dakota there are 3,072 rural-school districts, 260 independent city and town districts, and 94 consolidated districts.

The total number of small rural-school districts within these 11 States is approximately 65,000. Although the movement to consolidate school districts has been going forward, there is still much work ahead for State departments of education and for county school superintendents if they are desirous of reducing the number of school districts and of organizing larger units for administration and support. Many questions arise. Among them are: Should the county by legislative enactment be made the unit of administration? If it should be made the unit, should the cities be included? If the county should not be made the unit by legislative enactment, should larger units of administration be formed through the slow process of consolidating school districts by a vote of the people? Before these and many other questions can be answered satisfactorily, careful studies of every factor involved will be necessary. Possibly no other American school problem is in greater need of a thorough study than is the local unit of school administration.

CITY-SCHOOL SYSTEMS

Within the biennium, and even within the decade 1920–1930, there have been few changes in the general or external administration of city-school systems, such as changes in method of selecting members of boards of education, size of boards, length of term for which elected, and the fiscal relationship to city government. Most of the changes in these respects were made between 1900 and 1920.

The principal changes in the administration of city schools within the past 10 years have been those effected by boards of education and its administrative staff. These changes have related to the administrative organization and to the organization within the schools themselves.

One of the outstanding movements among city boards of education is to simplify the administrative organization by reducing the number of standing committees or by abolishing them entirely. Not so

many years ago it was customary for boards of education to appoint numerous standing committees. To-day many boards are organized without such committees. Although no data have been compiled on the subject since 1927, the movement to reduce the number of committees apparently is still going forward. In 1927, 25 per cent of the boards of education in cities having a population between 30,000 and 100,000 had no standing committees and 38.2 per cent of the boards of education in cities having a population of 100,000 or more had no such committees.

A comparison of the number of standing committees in these two groups of cities in 1917 and in 1927 shows a substantial reduction in number as may be noticed from the following tables. Table 11 contains data for all cities reporting in 1917 and in 1927; and Table 12 contains data for those cities only that reported both in 1917 and in 1927.

TABLE 11.—*Number and per cent of city-school districts having specified numbers of standing committees in 1917 and in 1927*

Number of committees	Number of city-school districts							
	100,000 or more population				30,000 to 100,000 population			
	1917	Per cent	1927	Per cent	1917	Per cent	1927	Per cent
0	3	7.3	21	38.2	12	9.1	35	25.0
2	0	0.0	1	1.8	4	3.1	8	5.7
3	9	22.0	4	7.3	8	6.1	17	12.2
4	5	12.2	6	10.9	24	18.3	17	12.2
5	5	12.2	10	18.2	18	13.7	14	10.0
6	5	12.2	5	9.1	20	15.3	16	11.4
7	5	12.2	2	3.6	16	12.2	9	6.4
8	4	9.7	4	7.3	13	10.0	9	6.4
9	1	2.5	1	1.8	6	4.6	9	6.4
10 or more	4	9.7	1	1.8	10	7.6	6	4.3
Total	41	100.0	55	100.0	131	100.0	140	100.0

TABLE 12.—*Number and per cent of city-school districts having specified numbers of standing committees in 1917 and in 1927 (only those reporting at both dates)*

Number of committees	Number of city-school districts							
	100,000 or more population				30,000 to 100,000 population			
	1917	Per cent	1927	Per cent	1917	Per cent	1927	Per cent
0	0	0.0	9	36.0	0	0.0	16	28.6
2	0	0.0	1	4.0	1	1.8	3	5.4
3	6	24.0	3	12.0	4	7.1	6	10.7
4	2	8.0	3	12.0	13	23.2	4	7.1
5	4	16.0	4	16.0	6	10.7	4	7.1
6	3	12.0	2	8.0	11	19.7	8	14.3
7	3	12.0	0	0.0	8	14.3	7	12.5
8	3	12.0	2	8.0	6	10.7	4	7.1
9	2	8.0	0	0.0	1	1.8	2	3.6
10 or more	2	8.0	1	4.0	6	10.7	2	3.6
Total	25	100.0	25	100.0	56	100.0	56	100.0

The median number of standing committees in the 25 cities of 100,000 or more population reporting both in 1917 and in 1927 was 6 in 1917 and 3 in 1927. In the 56 cities between 30,000 and 100,000 population reporting at both dates, the median number of committees in 1917 was 6, and in 1927 the median number was 4.

The administrative organization of city-school systems is in process of further simplification by making the superintendent of schools the chief executive officer of the board of education. In the earlier days the dual system—a superintendent in charge of professional matters and a business manager in charge of business affairs—was in vogue. Although the movement to organize on the unit plan may not have gone forward so rapidly as its advocates would have liked, the tendency has been to assign business affairs to an official variously designated as business manager, business agent, purchasing agent, secretary, or assistant superintendent in charge of business, and to make him directly responsible to the superintendent of schools. This plan of organization has been recommended by all the city school survey commissions in their discussion of the relationship that should exist among the members of the executive staff.

The problem of the organization for the supervision of instruction in city-school systems has received much attention. The Eighth Year Book of the Department of Superintendence of the National Education Association, which is devoted to various phases of supervision, sets forth progressive practices. One chapter describes the three general types of supervisory organization in operation. These are the line-and-staff, the dual, and the coordinate.

In the line and staff organization the principal is a line officer, to whom the teachers are directly responsible. The supervisor is a staff officer, acting in an advisory capacity, with no direct authority over teachers. In the dual organization the teacher is directly responsible to both principal and supervisor—to the principal for school management and to the supervisor for methods of instruction. The coordinate type involves both the line-and-staff and the dual organization. This type of organization does not attempt to separate supervision and administration so distinctly as do each of the other types.

Possibly no city follows any one of these plans exclusively, but data recently compiled by the Office of Education show that the line-and-staff organization is in operation in more cities than is either of the other plans. Of 54 cities having a population of 100,000 and more reporting, 30 have the line-and-staff, 14 the dual, and 10 the coordinate type. Of 112 cities having a population between 30,000 and 100,000 reporting, 47 have the line-and-staff, 34 the dual, and 31 the coordinate plan of supervisory organization.

According to the Seventh Year Book of the Department of Elementary School Principals—

> Modern practice tends to convert the general supervisor into an assistant superintendent, deputy superintendent or similar officer with administrative authority from the superintendent. Under ideal conditions he works through principals in securing school improvement. The special supervisor is tending to become in progressive theory and practice an expert instructor of teachers and the technical adviser of principals. He may be a supervisor of writing, art, music, special classes, industrial classes or some other specialized activity.
>
> In school systems where the progressive theory indicated above is practiced the activities of principals and supervisors are more readily coordinated. Assistant superintendents direct, guide, and advise principals in accordance with delegated authority. Special supervisors instruct teachers in better technic and advise with principals in reference to the supervision of their respective subjects. Conferences among groups keep all persons informed as to objectives and prevent misunderstanding.

One of the significant movements in city school administration worthy of note is the rapid growth in the number of research bureaus or departments.[7] According to data recently compiled by the Office of Education there were 2 such bureaus in 1912, 49 in 1922, and 119 in 1930. The functions of the earlier research bureaus were comparatively few, and the staff of each was small. To-day most of these bureaus perform many functions. Among these are testing, curriculum making, guidance, surveys, experimental studies and financial studies. The size of the staff of full-time workers ranges from 1 to 48. The average size in cities having a population of 100,000 or more is 5.5, and in cities having fewer than 100,000 the average size is 2.3.

Among the many other movements in the administration of city school systems that are receiving thoughtful attention and that are going forward are provisions for individual differences in children by means of ability grouping, individual instruction plans, and special classes; the organization of junior and senior high schools and junior colleges; the platoon plan; and curriculum revision.

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[7] United States Office of Education Leaflet No. 2, Organization and Functions of Research Bureaus in City-School Systems.

II. PUBLIC-SCHOOL FINANCE

By Timon Covert

Specialist in School Finance

Growth in a governmental service renders that service more expensive to the taxpayers. This is strikingly evident in a review of public-school finance in the United States over any period of time for which relevant data are available. What thinking American can read: "$63,000,000 spent for elementary and secondary education in 1870, more than two hundred millions in 1900, and approximately two and a half billion dollars in 1930," without attempting to visualize the progress of American education since Civil War days? In most cases taxpayers realize in a vague way that expenditures for education are increasing and will probably continue to increase. Few take the trouble to analyze the situation carefully. Some object to costly improvement, but most people loyally continue to support the schools.

FACTORS INFLUENCING EXPENDITURES FOR EDUCATION

Increasing school costs result from a number of causes. Just how much of the increase may be attributed to influences outside of educational development, such as higher living standards and variation in cost of living, no one can determine with absolute certainty. However, we know that many comparatively costly conveniences now considered essential for the average salaried individual were unheard of a few years ago. And statistics show that many necessities of living are considerably higher in price than they were in pre-World War days.

INFLUENCES FOR WHICH THE SCHOOLS ARE NOT RESPONSIBLE

Computation by the National Industrial Conference Board [1] placed the purchasing value of a dollar in November, 1929, at 61 per cent of its value in July, 1914. The United States Bureau of Labor Statistics shows that in 1929 it cost 171 per cent as much to live in

[1] National Industrial Conference Board. Cost of Living in the United States, 1914–1929. P. 142.

the average community of the United States as it did in 1913. The close of the decade witnessed a reduction in living costs.

Table 1 presents the expenditures for education at different dates as compared to the purchasing power of these amounts. The indexes of the cost of living are based on such items as food, rent, clothing, fuel, light, house furnishings, and miscellaneous. In the light of these data it is evident that a considerable part of the increase since 1913 is due to higher-priced commodities; on the other hand, as already stated, we find a reduction in living costs since 1920 when the peak was reached.

TABLE 1.—*Total expenditure for public schools in the United States*

Year	Expenditure (in millions of dollars)	Index of cost of living	Purchasing power of amounts in column 2 (in millions of dollars)
1	2	3	4
1913	$522	100	$522
1918	764	174	438
1920	1,036	200	518
1922	1,580	169	935
1929	[1] 2,237	171	1,308

[1] Estimated.

FACTORS RELATING TO EDUCATIONAL DEVELOPMENT

Attendance, length of term, scope of program, and salary schedule are some of the most important factors in the advancing cost of education. It is apparent to anyone familiar with the increase which has taken place in public-school attendance, even during the last 10 years, that large expenditures are required to provide housing facilities and instructional service for so many additional children. It is equally evident that large expenditures are necessary as a result of lengthened terms and higher salaries for teachers. The increasing amount and quality of service rendered by the schools, while just as much in evidence, are less frequently recognized as a cause for advancing expenditures.

Influence of widened functions.—Present-day living customs are shifting more and more burdens of rearing children from the home to the school. Activities which a short time ago were considered extracurricular are now a regular part of the educational program. The modern school is no longer a mere place of instruction. It is an institution of increasing complexity in which are centered many activities for the physical, mental, and moral development of our

children. These additional burdens demand much in the way of curriculum offerings, professionally prepared teachers, buildings, and equipment that the schools of yesterday were not obliged to supply.

We find that the annual expenditure for the promotion of health among school children, for the transportation of pupils, and for instruction in kindergartens more than doubled between 1920 and 1928. During the same time expenditure for school libraries increased from $3,000,000 to five and a half millions. Funds appropriated for the education of crippled children are constantly increasing. For example, State aid to the amount of $100,000 annually has been available since 1927 in Wisconsin for this purpose; the 1929 Michigan Legislature, in appropriating $400,000 for schools for crippled children for the two years 1930 and 1931, more than doubled the amount of such funds provided for the previous biennium; and in Maryland the same year legislation was enacted which provides $2,000 State funds annually for each approved class of at least 10 physically handicapped children. There are continual demands on the schools for service of many additional types. As the schools are equipped to meet these growing needs the costs increase.

Influence of attendance increases.—Average daily attendance in public schools increased more than 100 per cent from 1900 to 1930, chiefly as a result of total population increase, enactment and operation of compulsory education laws, and the universal acceptance of secondary education as a part of our common-school system. The population of the United States in 1900 was approximately twice what it had been 30 years before. It has not doubled since 1900, but the increase has been large. Sixty years ago 17.8 per cent, or 1 in every 5.6 persons in our population, was enrolled in public school; now 21 per cent, or 1 in every 4.8, is enrolled.

Sixty years ago compulsory attendance laws were in force in only 2 States; 50 years ago they were in force in 16 States; 40 years ago, in 26 States; 30 years ago, in 32 States; 20 years ago, in 41 States; and by 1918 all States had such laws. Amendatory legislation enacted in several States since has extended the time of required school attendance. It is evident, therefore, that attendance increased greatly as a result of legal compulsion. Meanwhile, however, the rapid spread of high schools, particularly since 1900, induced many children to remain in school beyond the required age. In 1900, 519,251 pupils were reported in public high schools; in 1910 the number had increased to 915,061; in 1920 to 2,199,389, and in 1930 to more than 4,000,000.

During the period of rapid increase in school attendance we find that the amount spent for each pupil has steadily increased. Data

pertaining to increasing attendance in relation to rising costs are presented in the following table:

TABLE 2.—*Increasing attendance and school costs in the United States, 1870–1930*

Years	Millions of children in average attendance	Millions of dollars expended	Average annual expenditure per pupil
1	2	3	4
1870	4	63	$15
1880	6	78	12
1890	8	140	17
1900	10	214	20
1910	12	426	33
1915	14	605	40
1920	16	1,036	64
1925	19	1,946	98
1930	[1] 21	[1] 2,289	[1] 99
Per cent of increase 1870 to 1930	425	3,533	560

[1] Estimated.

Table 2 shows that the average daily attendance increased approximately 400 per cent during the 60 years from 1870 to 1930, whereas expenditure increased more than 3,500 per cent. This makes an increase in the average annual expenditure per pupil of 560 per cent. This increase in cost, as already pointed out, is attributable in part only to costlier education. The variation in cost of living accounts for a large part of the increase during recent years. Computing the approximate increase in annual expenditure per pupil (see Table 1) between 1913 and 1929 by taking the amount at the halfway point ($36.50) between the expenditure in 1910 and that in 1915 from the expenditure in 1929, determined similarly, we find it has been $62. But $62 in 1929 had a purchasing value, in terms of the 1913 dollar, of only $36, which is the increase in average annual expenditure per pupil since 1913 due to costlier education. Although the increase in expenditure per pupil has been constant it was more in some periods than in others. The percentage of increase has been greatest during the last decade.

Placing secondary-school facilities within reach of all children of high-school age is a comparatively recent undertaking. Data concerning these schools indicate that their development has been a factor not only in increasing attendance and total school costs, but also in raising the per capita cost of education. During the 30 years from 1900 to 1930 the rate of increase of public high-school enrollment was approximately 10 times that of the total public-school enrollment. The estimated [2] cost per pupil enrolled in public high

[2] United States Bureau of Education, Bulletin, 1928, No. 12, p. 9.

schools in 1925–26 was $185.74, as compared to $63.31 per pupil in elementary schools.

Influence of longer term.—Longer terms of school are important factors in accounting for higher costs. In 1929–30 the average school was in session more than 8½ months; two months more than it was 50 years ago and a half month more than at the beginning of the decade. The results of efforts to extend the length of school terms in rural districts are beginning to be felt. Some States now require 9-month terms as a minimum for all schools. Many city school systems maintain 10-month terms, while some have even longer sessions. Legislation in 1929 raised the minimum school term in Illinois from 7 months to 8 months and in Maine from 30 weeks to 32 weeks, and in 1930 in Virginia from 140 days to 160 days.

Influence of building activity.—The period of inactivity in building during the World War left thousands of school communities with inadequate housing facilities well into the 1920's. Accordingly expenditure for school buildings and equipment advanced from approximately $100,000,000 in 1915 to approximately $430,000,000 in 1925. Since the latter date the amount expended has been somewhat less, but it is not far from $16 annually per pupil at present, as compared to $4 in 1910 and $7 in 1920. Vastly better and more costly buildings are replacing those erected 30 or 40 years ago. Those who plan present-day school buildings are more concerned with beauty of design, adequate lighting and ventilation facilities, and the correct arrangement of rooms than in getting the largest building for the available funds. The value of school property per pupil enrolled in 1928 was $218, as compared to $111 in 1920.

Influence of salary increases.—Although teachers have never been paid on a par with others considering the demands made upon them, we find considerable progress has been made during recent years in their efforts to obtain better salaries. In 1900 the average salary for all public-school teachers in the United States was $325, by 1910 it had advanced to $485, and by 1915 to $543. In 1920 the average annual salary of all teachers, including 6,583 supervisors and 13,638 principals, was $871; in 1925, including 7,809 supervisors and 24,734 principals, it was $1,252; and in 1928, including 6,629 supervisors and 25,848 principals, it was $1,364. Assuming that the rate of increase for the first eight years of the decade has continued during the present biennium, the average in 1930, including supervisors and principals, was $1,488. Some of the increase may be attributed to longer terms, but the major part no doubt is a consequence of raising teaching standards in particular and

of educational progress in general. Be this as it may, larger instructional costs are important factors in the increasing expenditures for education.

LEGISLATIVE PROVISIONS FOR MEETING SCHOOL COSTS

FEDERAL PARTICIPATION IN SCHOOL SUPPORT

There is little change from policies established prior to the present decade relative to the question of revenue for public education from national sources. But there has been rather constant effort put forth to induce the Federal Government to assume more responsibility in promoting public education than it now does. A number of proposals to create a Federal department of education with large annual grants of Federal revenue for the public schools have been before Congress. Recently, however, bills, such as the Curtis-Reed bill in the Seventy-first Congress, providing for the creation of a Federal department of education without money grants for public schools have been considered. The whole problem concerning the part which the Federal Government should take in public education is being carefully investigated at the present time by a committee appointed by the Secretary of the Interior.

Funds derived from Federal current income and paid to States to be used wholly or in part for public schools are the per cent grants, the forest-reserve county funds, the Smith-Hughes vocational education aid, and mineral royalty grants.

Grants from sale of land.—Per cent grants are made from funds derived from the sale of lands belonging to the United States in public land States. Beginning in 1802 with the admission of Ohio, a certain per cent of the proceeds of sales of these lands has been paid to the State in which the land is located. The grants are for purposes of education or of making public roads and improvements. The 29 States receiving such grants had been paid a total of $17,020,749.76 [3] up to June 30, 1930; 25 States received approximately $228,488 during the decade ended June 30, 1930; 23 States received $30,451.60 during the fiscal year ended June 30, 1929, and an estimated amount of $13,276.35 during the fiscal year 1930.

Grants from forest reserve income.—Congress provided in 1907 for the payment (to begin with the fiscal year 1906) of 10 per cent of all moneys, derived chiefly from timber and grazing rights, received annually by any forest reserve to the State or Territory containing said reserve, for the benefit of the public schools and public roads of the county or counties in which the forest reserve was situated.

[3] Figures from the General Land Office including its estimated amount for the year 1930.

This law was amended May 23, 1908, increasing the grant to 25 per cent, at which it has remained to the present time. Thirty States and two Territories contain national forest reserves varying in size from approximately 24,000,000 acres in California to less than 10,000 acres in Louisiana. Incomes were obtained from those in 28 States and the two Territories in 1929 and 1930. The 25 per cent grants for schools and roads varied all the way from $62.48 in Porto Rico in 1929 to $406,877.02 in California in 1930. The total in 1929 was $1,605,882.65 and in 1930 $1,718,875.33. In 1920 the grants totalled $1,180,065 and in 1921 $1,023,082.

An act of Congress of June 10, 1910, provided for the payment of a part of the gross income of any forest reserve containing school land belonging to a State or Territory in which said forest reserve is situated. The amount granted to a State or Territory under this act bears the same ratio to the entire income of such forest reserve in said State or Territory that the area of the school sections in the reserve bears to the area of the entire forest reserve. Two States, Arizona and New Mexico, received funds under this provision during the biennium.

Funds from Smith-Hughes and similar subsequent acts.—With the enactment of the well-known Federal Vocational Education Law of February 23, 1917, Congress made definite provision through the use of national funds for promoting one phase of public-school education. Beginning with the fiscal year 1918, when $1,700,000 was made available under the provision of this law, the annual appropriations had increased by 1926 to $7,200,000, at which figure they continued until and including 1929. By the provisions of an amendment of February 5, 1929, the appropriations for instruction in certain vocational subjects are to increase by a half million dollars and those for administrative purposes by $100,000 a year from 1930 to 1934 inclusive. The vocational rehabilitation act of June 2, 1920, with subsequent amendments and extensions, provides for the annual appropriation of $1,075,000 from the Federal Treasury for the instruction and guidance of persons disabled in industry or otherwise into some useful employment. It is interesting to note in passing that enrollment in the vocational courses benefiting by these national subsidies increased from approximately 260,000 in 1920 to approximately 1,000,000 in 1930.

Funds from mineral leases.—Thirteen States received funds during the decade derived from Federal mineral leases. The law under which these leases are made became effective at the beginning of the decade. It provides for leasing land on the public domain for coal, phosphate, oil, oil shale, gas, and sodium mining. Thirty-seven and

one-half per cent of the receipts from bonuses, royalties, and rentals for production since the act became effective is paid to the State within whose boundaries the leased lands or deposits are located. These moneys are granted to the State for the construction and maintenance of public roads or for the support of public schools or other public educational institutions as the legislature of the State may direct.

The amounts paid from this source during the decade are shown in Table 3.

TABLE 3.—*Payments to States from receipts under the leasing act of February 25, 1920, from the passage of the act to June 30, 1930* [1]

State	Subtotal, 1921–1926	1927	1928	1929	1930	Total
1	2	3	4	5	6	7
Alabama	$32,737.50	$586.76	$1,138.54	$3,306.75	$5,437.31	$43,206.86
California	2,811,987.97	445,601.48	521,319.18	241,031.71	378,454.88	4,398,395.22
Colorado	80,592.37	40,867.46	34,918.75	36,816.11	36,686 31	229,881.00
Idaho	510.44	736.19	930.90	1,123.39	1,069.06	4,369.98
Louisiana	1,856.31	5,330.94	1,461.61	4,544.40	1,457.33	14,650.59
Montana	454,895.64	70,832.76	44,651.39	42,445.49	40,530.97	653,356.25
Nevada	831.43	540.00	548.64	273.75	311.25	2,505.07
New Mexico	10,791.41	5,771.91	9,688.23	16,977.45	44,616.02	87,845.02
North Dakota	12,810.73	2,904.18	12,277.55	11,404.23	8,887.93	48,284.62
South Dakota	203.30	7.06	15.00	15.00	48.68	289.04
Utah	62,060.87	12,905.95	21,705.52	33,332.48	30,563.14	160,567.96
Washington	7,223.96	939.11	1,491.32	169.33	574.28	10,398.00
Wyoming	14,705,025.97	1,911,665.78	1,102,534.13	996,590.99	1,227,925.89	19,943,742.76
Total	18,181,527.90	2,498,689.58	1,752,680.76	1,388,031.08	1,776,563.05	25,597,492.37

[1] Column 2 includes 20 per cent of receipts from production previous to enactment of law February 25, 1920. Data compiled by United States General Land Office.

It will be seen in the above table that, with two or three exceptions, the money paid to the 13 participating States under the mineral-leasing act has been of minor importance as a source of State income. It is apparent, however, that valuable production under the act in a public-land State would be a significant source of revenue to that State. This is true in Wyoming where these funds amounted in 1928 to more than 11 per cent of the total State revenue receipts and to 18 per cent of the total expenditure for public schools that year. Of the four States receiving the largest amounts under this act, California uses her entire quota (except there be a surplus) for the maintenance of junior colleges; Colorado uses two-thirds of her quota for public roads and one-third for the State school of mines; Montana places hers into a State common school equalization fund; and Wyoming uses 50 per cent of her royalties (up to $4,000,000) for salaries of public-school teachers and school bus drivers, 41 per cent for public roads, and 9 per cent for State university purposes.

In a number of other appropriations the Federal Government aided public schools directly or indirectly during the biennium. Among these are tuition paid for Indian children in the public schools of some States, appropriations for the schools for natives of Alaska, an amount fixed yearly by Congress for the public schools of the District of Columbia, and appropriations for extension work in agriculture and home economics under the Smith-Lever Act of 1914. The biennium has witnessed no departure of consequence from procedures followed previous to 1928 in the granting of these funds.

STATE PARTICIPATION IN SCHOOL SUPPORT

Remarkable interest has been manifested throughout the decade in the question of State support for public schools. Although no new plans have developed many changes in those previously existing have taken place. Among the most important activities in this connection are the efforts put forth in all sections of the country to find new sources of State school revenue and the attempts in one State after another to equalize the burden of school support.

Attention has already been called to the constantly widening and rising educational standards and the resultant higher costs of the educational program. Since the State itself is responsible for the advancing standards, such as longer terms, more years of compulsory attendance, and higher qualifications for teachers, it is fair to assume provision has been made to meet the additional costs from State sources. However, this has not generally been the case, as can be seen in Table 4.

TABLE 4.—*Per cent of school revenue derived from the State in 1927–28 as compared to that in 1917–18*

States	1927–28		1917–18	
	Rank of State	Per cent of revenue from State	Rank of State	Per cent of revenue from State
1	2	3	4	5
Delaware	1	83.4	15	25.1
Alabama	2	40.7	1	63.1
Texas	3	35.7	7	40.7
Utah	4	35.1	8½	35.3
Wyoming	5	32.7	14	25.3
Arkansas	6	32.3	13	27.7
Mississippi	7	31.9	3	48.9
Washington	8	30.4	20	21.7
Maine	9	30.1	6	44.2
New Mexico	10	29.8	23	20.2
Georgia	11	29.3	2	49.8
Kentucky	12	27.0	4	46.0
Louisiana	13	26.9	16	23.7
New York	14	26.8	37	9.3
Virginia	15	26.6	11	30.1

TABLE 4.—*Per cent of school revenue derived from the State in 1927–28 as compared to that in 1917–18*—Continued

States	1927-28		1917-18	
	Rank of State	Per cent of revenue from State	Rank of State	Per cent of revenue from State
1	2	3	4	5
Tennessee	16	24.8	24	19.1
South Carolina	17	23.7	33	12.3
Nevada	18	21.6	8½	35.3
Minnesota	19	20.2	12	28.2
Arizona	20	20.1	22	20.6
New Jersey	21	20.0	5	45.1
California	22	19.5	18	22.2
Maryland	23	18.2	10	31.3
Pennsylvania	24	16.9	36	9.4
Michigan	25	16.2	19	22.1
Rhode Island	26	15.3	44½	5.2
Vermont	27	14.0	21	21.3
Oregon	28	13.4	44½	5.2
Montana	29	12.5	32	12.7
North Carolina	30	11.2	30	13.6
Massachusetts	31	10.3	46	3.5
Wisconsin	32	10.2	25	17.7
Missouri	33	10.1	34	12.0
New Hampshire	34½	10.0	43	5.9
North Dakota	34½	10.0	28	14.9
South Dakota	36	9.3	27	16.4
Florida	37	9.0	17	22.7
Indiana	38	7.8	26	17.0
West Virginia	39	7.7	38	8.9
Idaho	40	7.4	31	12.8
Oklahoma	41	7.1	29	14.3
Illinois	42	5.9	41	7.5
Nebraska	43	5.6	39	8.2
Ohio	44	4.9	40	8.0
Iowa	45	4.3	48	2.0
Colorado	46	3.2	42	6.8
Connecticut	47	2.8	35	9.9
Kansas	48	1.8	47	2.8

Summary of Table 4

Number of States		Per cent of money derived from State
1927–28	1917–18	
1	2	3
1	1	More than 50
1	6	40–49.9
7	4	30–39.9
12	12	20–29.9
14	11	10–19.9
13	14	0– 9.9

Failure on the part of law makers to make adequate provision to meet the mounting costs of the educational program results in throwing a constantly heavier burden on local school taxing units. Public schools of 7 States received 40 per cent or more of their revenue in 1917–18 from State sources, whereas this was true in only 2 States in 1927–28; those of 11 States received 30 per cent or more in 1917–18, but the schools in only 9 States received as much in 1927–28; those of 23 States received 20 per cent or more in 1917–18 and of 21 States in 1927–28; those of 34 States received 10 per cent or more in 1917–18 and of 35 States in 1927–28. Some State funds were provided for the public schools in all States both years. The median per cent in 1917–18 fell between 19.1 and 17.7, while in 1927–28 it fell between 16.9 and 16.2.

Available reports for 1929 and 1930 indicate that for these years an arrangement, similar to that presented in Table 4, would show considerable shifting in the positions of States from the position they occupied in 1927–28. The general trend downward in percentage of total public-school expenditure derived from State sources continued during the biennium 1928–1930 in most States, but in a few the percentage increased.

Types of State taxes.—That the general property tax has been overworked as a source of revenue is an accepted truism to-day. Since localities depend chiefly on this type of tax for their revenue and since, as has been pointed out, localities have borne the brunt of the burden of increased school costs, there is an imperative need for States in their process of raising revenue to tax other forms of wealth if localities are to be relieved. Accordingly, much study concerning new sources of wealth and new types of taxes is in evidence. Financial surveys and investigations by legislative and other important committees have been made during the decade in practically all States with the view of bringing about improvement in taxing systems. Such investigations were under way in more than one-half the States during the biennium 1928–1930. Reports and recommendations of most of these were placed in the hands of the 1931 legislatures.

Recent changes in revenue laws reflect the wide-spread interest in the tax-reform movement. Data showing the relative importance of the proceeds of the different types of State taxes during the decade indicate a trend toward newer types of taxes.

TABLE 5.—*Per cent of State revenue receipts received from various sources* [1]

States	General property tax		Business license [2]		Motor vehicle license tax		Motor fuel tax		Earnings of general departments	
	1919	1928	1919	1927	1919	1928	1919	1928	1919	1928
1	2	3	4	5	6	7	8	9	10	11
Alabama	49.6	25.8	7.8	11.4	2.0	9.4	-------	10.8	29.9	13.2
Arizona	70.1	62.6	1.9	2.7	3.8	5.0	-------	10.4	8.9	4.1
Arkansas	63.6	23.1	5.3	8.1	6.7	17.0	-------	20.4	11.1	5.6
California	.03	-------	39.6	21.6	7.9	5.6	-------	15.0	9.4	6.4
Colorado	55.6	31.7	4.8	4.6	2.5	5.2	-------	21.8	12.7	11.2
Connecticut	13.3	6.6	17.8	24.9	7.5	20.1	-------	9.1	8.6	7.7
Delaware	-------	4.4	29.0	4.2	12.5	10.1	-------	8.3	4.2	6.2
Florida	63.2	20.6	11.6	7.0	7.7	14.2	-------	34.6	9.5	7.6
Georgia	54.4	23.6	7.2	8.7	4.0	13.8	-------	21.9	11.8	5.8
Idaho	32.1	28.6	5.0	3.6	4.9	1.9	-------	20.5	19.3	6.3
Illinois	66.5	32.2	11.7	19.5	8.0	18.8	-------	7.8	4.8	4.1
Indiana	53.1	26.7	5.9	7.2	8.5	9.3	-------	24.4	15.0	10.3
Iowa	44.9	24.6	6.0	6.8	2.1	25.1	-------	11.2	18.8	13.7
Kansas	51.0	30.6	7.8	4.2	1.3	14.2	-------	18.2	20.1	12.0
Kentucky	51.0	30.6	16.4	8.0	4.5	13.6	-------	17.8	10.4	7.1
Louisiana	53.7	33.1	18.9	15.8	-------	15.2	-------	11.6	18.5	4.8
Maine	41.9	26.3	21.4	15.9	7.5	14.5	-------	13.7	12.7	7.8
Maryland	35.5	22.3	25.5	21.2	7.7	7.4	-------	16.5	15.4	14.7
Massachusetts	27.9	14.3	16.0	5.9	5.4	21.4	-------	-------	9.1	7.0
Michigan	55.5	40.2	4.5	4.8	11.4	13.0	-------	14.6	17.3	7.8
Minnesota	24.6	19.2	26.3	25.1	3.6	16.9	-------	8.9	22.7	9.0
Mississippi	46.5	24.3	16.9	12.4	0.4	2.2	-------	14.1	23.8	10.9
Missouri	18.0	14.2	16.8	6.8	7.4	19.1	-------	14.7	40.2	15.9
Montana	28.1	18.0	20.3	17.2	4.6	-------	-------	15.7	6.0	5.9
Nebraska	60.6	45.7	3.8	3.4	0.9	5.5	-------	16.8	16.0	9.1
Nevada	65.9	33.9	8.3	1.0	1.8	6.3	-------	6.8	4.6	5.8
New Hampshire	51.5	33.0	5.7	5.5	16.1	19.8	-------	16.8	8.5	8.6
New Jersey	58.7	42.0	7.7	2.9	6.7	14.7	-------	7.2	5.7	5.0
New Mexico	50.2	30.4	4.3	1.8	1.8	4.9	-------	19.7	12.8	11.6
New York	17.6	10.3	31.5	21.7	2.9	9.8	-------	-------	5.3	3.2
North Carolina	40.5	-------	13.0	11.0	6.5	18.9	-------	22.4	18.5	9.9
North Dakota	29.9	21.4	5.3	3.3	7.0	5.9	-------	7.4	21.5	9.7
Ohio	15.8	14.4	35.7	25.5	9.7	8.0	-------	20.5	12.7	8.6
Oklahoma	28.1	10.9	21.9	28.9	0.7	7.0	-------	16.1	10.4	7.5
Oregon	53.5	22.0	5.5	5.0	9.0	28.5	-------	16.3	10.7	8.0
Pennsylvania	-------	-------	19.4	12.3	8.5	17.4	-------	10.6	9.8	6.7
Rhode Island	18.8	14.0	15.4	11.8	8.1	18.5	-------	9.9	6.4	5.0
South Carolina	63.9	10.3	5.0	18.3	1.3	16.0	-------	16.7	21.1	7.6
South Dakota	42.7	25.7	4.0	4.5	0.6	8.5	-------	16.2	16.8	8.2
Tennessee	38.3	10.8	12.3	14.6	5.4	13.8	-------	15.5	25.1	7.9
Texas	58.3	27.3	8.1	13.7	6.9	13.9	-------	20.6	12.2	4.8
Utah	53.3	41.3	4.9	3.5	3.7	5.8	-------	13.4	6.6	8.5
Vermont	39.6	14.7	6.4	5.2	11.5	25.1	-------	12.0	6.8	5.1
Virginia	31.0	15.2	26.9	16.4	5.1	13.3	-------	13.8	9.1	11.5
Washington	62.2	45.3	6.4	5.5	6.6	19.5	-------	10.9	6.1	6.0
West Virginia	21.1	12.2	18.4	23.1	11.9	17.7	-------	17.8	13.7	8.7
Wisconsin	52.4	21.0	5.9	5.8	9.3	23.2	-------	13.7	13.3	10.3
Wyoming	44.3	13.2	2.9	1.4	.6	5.7	-------	9.5	11.2	6.8
United States	30.2	25.1	10.8	14.4	10.2	13.6	-------	12.5	12.3	7.4

[1] Source of data, United States Bureau of the Census.
[2] Data for 1928 not available; does not include motor fuel tax.

TABLE 5.—*Per cent of State revenue receipts received from various sources*—Con.

States	Inheritance tax		Special property tax [3]		Income tax		Earnings of public service enterprises [4]		All other revenue	
	1919	1928	1919	1928	1919	1928	1919	1928	1919	1928 [5]
1	12	13	14	15	16	17	18	19	20	21
Alabama			2.6	4.6				1.8	7.1	23.0
Arizona	0.4	4.1							14.9	11.1
Arkansas	2.7	1.1	5.4	2.3				1.4	5.2	21.0
California	10.3	10.6	15.1	8.5			6.7	3.1	11.0	29.2
Colorado	4.3	4.6	2.8						17.3	20.9
Connecticut	9.6	8.8	18.3	10.5	16.4		1.0	.01	7.5	12.3
Delaware	3.0	6.9	12.7	19.0	21.3	17.2			17.3	23.7
Florida			.7	.2					7.3	15.8
Georgia	2.3	2.1	1.8					.05	18.5	24.1
Idaho	.7	.3	2.4						35.6	38.8
Illinois	4.8	11.3					.09	.04	4.2	6.3
Indiana	3.6	2.6	1.2	.2					12.7	19.3
Iowa	3.7	2.9							24.5	15.7
Kansas	2.9	2.6	3.5				1.9	1.5	11.6	16.7
Kentucky	7.6	2.1	2.1	1.2					8.0	19.6
Louisiana	1.2	2.4					.6	.2	7.1	16.9
Maine	3.5	9.1	7.5	5.1				1.2	5.5	14.2
Maryland	3.1	3.0	3.8	2.6			.5	1.6	8.5	10.7
Massachusetts	14.9	17.4	13.3	13.3		1.0	.7	.7	12.7	19.0
Michigan	1.8	2.5	1.3	7.6				.3	8.2	9.2
Minnesota	2.3	2.1	.2	.02					20.3	18.8
Mississippi	.03	.9	2.6	.9	1.1	8.2			8.7	16.1
Missouri	4.8	6.7	6.6	4.2	1.1	8.2			5.4	10.2
Montana	.9	5.8							40.1	37.4
Nebraska			1.7						17.0	19.5
Nevada	.01		.1	.08					19.3	46.2
New Hampshire	6.9	4.6	.4	.7					10.9	11.0
New Jersey	13.4	12.6	2.0	4.1				2.4	5.8	9.1
New Mexico		2.7		.3					30.9	28.6
New York	16.2	14.8	10.2	4.6		13.0			16.3	22.6
North Carolina	6.1	1.6	1.9	2.0	1.7	18.9		.1	11.9	15.4
North Dakota	1.3	1.5				2.4	.05	22.3	35.0	26.1
Ohio	1.4	3.3	15.1	8.8			.9	.3	8.7	10.6
Oklahoma	.1	.9	1.5	1.4	4.1	3.2			33.2	24.1
Oregon	1.3	2.5	3.4			.004	.1	.01	16.5	17.1
Pennsylvania	11.9	11.6	45.9	27.7				.4	4.5	13.3
Rhode Island	6.3	5.2	36.1	23.1			1.8	.2	7.1	12.3
South Carolina		.7	2.0	2.0	.6	11.3			6.1	17.1
South Dakota	1.7	1.2	.3					4.1	33.9	31.6
Tennessee	3.5	1.4	4.3	1.5					11.1	34.5
Texas	.5	1.1	2.0	2.1			.1		11.9	16.4
Utah	5.0	2.8	1.8						24.7	24.7
Vermont	2.6	4.4	24.1	16.9					9.0	16.6
Virginia	1.3	1.6	3.1		5.8	9.5			17.1	18.7
Washington	1.3	1.8							17.4	11.0
West Virginia	5.3	2.7	15.3						14.3	17.8
Wisconsin	3.7	7.4	.6		3.4	2.9			11.4	15.7
Wyoming		1.2							41.0	62.2
United States	5.8	6.5	8.6	5.4	.7	2.9	.4	.7	21.0	11.5

[3] Special property tax includes tax on corporation, bank, and insurance companies.
[4] Revenue derived from toll bridges, State printing plants, etc.
[5] Estimated.

Table 5 shows the relative importance of the various sources of "State" revenue for 1919 and for 1928. The percentages relate to revenue received by State governments and in most cases used by them in carrying on their various activities. Data showing receipts from business licenses for 1928 were not available when the compilations were made; those given are for 1927. Consequently the percentages shown in colume 21, all other revenue for 1928, are estimates. The items of the table are listed according to their importance in contributing to the State funds for the country as a whole in 1928.

The importance of the general property tax as a source of State revenue is decreasing. With the exception of California, Delaware, and Pennsylvania, in which no general property tax was levied in 1919, every State shows a decrease in percentage of revenue from this source. Three States in 1928, California, North Carolina, and Pennsylvania, did not use the general property tax, although the Bureau of the Census reports a small sum from the proceeds of tax-deeded lands in California. Thirty per cent of the total revenue for State purposes in all States was derived in 1919 from this tax as compared to 25 per cent in 1928. Only one State derived as much as 60 per cent of its revenue from the general property tax in 1928, whereas this was true in eight States in 1919. The median percentage for the 48 States in 1919 fell between 46.5 and 44.9, in 1928 between 23.1 and 22.3. The percentages for the middle 24 States in 1919 varied from 54.4 to 28.1, in 1928 from 30.6 to 14.2. Ten States derived less than an eighth of their revenue from the general property tax in 1928 as compared to three States in 1919.

Special property taxes, chiefly on stock transfer, incorporation, and the like, have decreased in importance with the general property taxes, but other types of taxation have increased in importance. The extent to which the several States depend on the different sources of revenue varies greatly. For all States, business licenses or taxes in 1927, not including the motor-fuel tax, produced 14 per cent of the governmental revenue as compared to less than 11 per cent in 1919. Two comparatively new, but mutual sources of State revenue, the motor-license and motor-fuel taxes, are rapidly assuming a place of major importance. Combined, they yielded in 1928, 26 per cent of the total—more than that produced by the general-property tax. Only one of these was utilized in 1919. All States now have the motor-fuel tax and all but one report motor-license revenue. Forty-four States derived revenue from the inheritance tax in 1928 varying from less than 1 per cent of the total to more than 17 per cent. For all States there was an increase of approximately 1 per cent from this source. Twelve States reported receipts from the income tax in 1928 as compared to nine States in 1919.

The earnings of general departments of State governments (revenue from fees, charges for services rendered, etc.) produced a smaller percentage of the total revenue for all States in 1928 than they did in 1919. The median percentage for the 48 States in the latter year was 7¾ as compared to 12 per cent in the former. Public-service enterprises (wharf, dock, and cement-plant earnings and the like), although not of great importance in most States, produced nearly a fourth of the revenue in North Dakota in 1928. Column 21 shows that sources of revenue other than those listed are not so important in 1928 for all States as they were in 1919, but that for some they were more important. Since subventions, donations, and grants from the Federal Government are included here, there is bound to be a wide variation in the percentages among the different States.

New sources of revenue for education.—Certain of the taxes mentioned in the preceding section, due to their present actual and future potential importance as sources of school revenue, deserve special treatment in a study of this kind. Among these are the income, the inheritance, the sales, and the severance taxes.

The income tax.—The State income tax has become within the past 20 years an important source of revenue for nearly half the States. During the decade just closed five States have enacted new income tax laws and a number of others have materially improved existing ones. Proceeds of State income taxes contribute directly or indirectly to State school support wherever such laws are in force. In most cases the proceeds go into the general State fund from which the various appropriations are made, but the schools in at least four States have a definite claim on the proceeds of income taxes.

In 1929 the Arkansas Legislature enacted an income tax law providing that $750,000 of its annual proceeds shall be paid into the public-school equalization fund. Delaware in 1921 amended the income tax law providing for the payment of the entire proceeds into the State current school fund. The proceeds of the Delaware tax amounted to $2,188,919.73 for the school year 1928–29. The Massachusetts law provides, since 1919, for the use of funds from the proceeds of the income tax sufficient to meet claims of schools in accordance with the State aid law. In 1929 Massachusetts paid the school corporations of the State $5,298,777.71 from the proceeds of this tax.

From the time the income tax law was enacted (1911) in Wisconsin until 1926, the State government retained only 10 per cent of the proceeds of the tax, and this was intended to cover the cost of administration. The remainder was returned to local and county governments. An amendment in 1926 increases the State's share to 40 per cent of the proceeds, all of which after deducting the cost of administration is used for educational purposes. (Under certain

conditions a portion of a local unit's share of the proceeds from the tax reverts to the county government for distribution to the schools.) The State received $6,288,669 as its share from this tax in 1929. Wisconsin also levies a surtax on incomes above $3,000 for the benefit of the teachers' retirement fund. This tax yielded $1,730,125 in 1929.

Other States enacting income tax laws during the decade, or strengthening those already in effect, for the purpose of obtaining additional revenue for schools include Georgia, Mississippi, Missouri, and North Carolina. Georgia provided for a tax on incomes for the first time in 1929. It has been estimated by those who sponsored the bill that this tax will yield $4,000,000 annually. The Georgia law has been tested in the State supreme court where it was declared constitutional. Increasing the rates of taxation and otherwise changing the laws in each of the other three States have resulted in greater revenue for educational purposes from this type of tax.

The inheritance tax.—The State inheritance tax is of more importance as a source of revenue than the income tax. In 1928, all but three States (Alabama, Florida, and Nevada) levied a tax on inherited estates, the proceeds of which yielded 6.5 per cent of the total [4] State revenue as compared to 5.8 per cent of the total in 1919. Regarding the three States not levying an inheritance tax, it is interesting to note that the consitution of Alabama of 1901 and an amendment adopted in 1930 to the Florida constitution authorize such a tax and Nevada previously levied one.[5]

The inheritance tax contributes in most instances, like many other State taxes, to the general expenses of government. The schools share in the proceeds indirectly. However, the laws of three States give the schools a direct claim on the proceeds. Kentucky, previous to 1924, used the inheritance tax for raising revenue for the State's general fund. Legislation that year provided for the use of 50 per cent of the annual proceeds for the support of the State's five institutions of higher learning; another change in the law in 1926 provides that the entire proceeds shall be used for this purpose. The proceeds exceeded $1,000,000 for the fiscal year ended June 30, 1929. Michigan has for years applied the proceeds of her inheritance tax to a fund which is used chiefly in making annual interest payments on the State's debt to the primary school fund. The proceeds amounted to over $3,000,000 for the fiscal year ended June 30, 1929. Previous to 1923 Montana applied the proceeds of her inheritance tax to the State's general fund. A change in the law that year

[4] Total for 43 States since in Nebraska the entire proceeds of taxes on inheritances remain in counties where collected for the respective county road funds.

[5] The Nevada law was in force from 1913 to 1925, when it was repealed. Forty per cent of the proceeds was applied to the State current school fund.

provides for the use of 50 per cent of the proceeds for the benefit of the public schools. The entire proceeds of the tax in Montana in 1928 amounted to $661,812.

Recent legislation in at least two States diverts the proceeds of the inheritance tax from educational funds to State general funds. Previous to 1925 California applied $250,000 of the proceeds of her inheritance tax to the current elementary school fund. Since that year all except 5 per cent of the proceeds, which goes to the teachers' permanent retirement fund, goes into the general fund. The proceeds of the Virginia inheritance tax in accordance with the 1928 tax code go into the State's general fund. Previously, two-thirds of the proceeds were placed directly into educational funds of the State.

The sales tax.—Taxes are levied on the manufacture, the sale, or the transfer of particular commodities or properties in all States. With the possible exception of West Virginia, however, the general sales tax is not common in the United States. The one commodity subject to the sales tax in all States is motor fuel. Other commodities most frequently subject to this tax are amusement tickets, malt, and tobacco.

The gas tax has suddenly become an important source of State revenue. Although the first motor-fuel tax law was enacted scarcely more than 10 years ago, 46 States levied such a tax in 1928 which produced one-eighth of the total State revenue for all States that year. (See Table 5.) During the last biennium the two remaining States levied a tax on gasoline and the rates in many others were advanced. The average tax rate on gasoline in 1925 was 2.3 cents per gallon in 44 States; in 1930 it was 3.8 cents in 48 States.[6] The motor-fuel tax is levied primarily for the benefit of roads, but a few States provide for the use of a part of the proceeds for educational purposes.

Florida, in 1927, in order to provide additional revenue for educational purposes, increased the tax on gasoline 1 cent a gallon, effective for the period July 1, 1927, to July 1, 1929. In 1929 the legislature levied gasoline taxes aggregating 1⅔ cents per gallon for educational purposes. The proceeds, except $400,000 set aside annually for a permanent building fund for institutions of higher learning, are credited to the public-school fund. The proceeds from this source apportioned to the public schools from July 1, 1929, to May, 1930, amounted to $2,631,845.

The 1927 Georgia Legislature provided for an equalization fund to be derived from the proceeds of a ½-cent gasoline and a 1-cent kerosene tax. The law was amended in 1929 by apportioning to

[6] State government. August, 1930. P. 8.

this fund the proceeds from an additional half-cent gasoline sales tax. In 1930, $2,407,804 was paid to the schools from the proceeds of these two taxes.

An amendment to the Louisiana constitution passed by the legislature in September, 1930, and approved by the voters in November, provided that an additional tax of 1 cent per gallon shall be levied on gasoline and that one-half of the proceeds shall be known as the State equalization fund for schools. It is estimated that the revenue for the schools from this new source will approximate $1,000,000 annually.

Texas levied a 1-cent tax on gasoline in 1923 as a part of the "gross receipts or occupation tax bill" (one-fourth of the revenue from this source goes to the "available free school fund"). The 1927 legislature increased the rate to 3 cents per gallon. At this rate the tax yielded $14,829,489.89 during the fiscal year September 1, 1928, to August 31, 1929, or 16½ per cent of the State's income. The rate was increased to 4 cents per gallon in 1929, and it is estimated that the proceeds will be $30,000,000, of which $7,500,000 will go to the school fund mentioned above.

License fees on certain articles or amusements, frequently designated "luxuries," have increased in importance as sources of State revenue throughout the country during recent years. Such revenue contributes in most cases to the general State fund, but the laws of a few States allocate the proceeds to educational funds. For example, Florida in 1927 provided for the levying of a State tax on every person, firm, or corporation engaged in the automobile tire and tube business and for crediting all money derived therefrom to the State school fund. Louisiana in 1928 provided for a tax of 10 cents per pound on malt, the proceeds of which are used by the State board of education "to alleviate conditions where reasonable taxation will not support adequate means of education." The rate was reduced to 3 cents per pound in 1930.

A number of States levy a sales tax on tobacco products and devote the proceeds to the public schools. The Alabama Legislature of 1927 provided for a tax of 15 per cent on the wholesale price of cigars, cigarettes, cheroots, or any substitute thereof, as one source of revenue for the public schools. This tax produced $1,278,689.98 during the fiscal year ended September 30, 1930. Arkansas has levied a tobacco tax throughout the decade. At present each wholesaler pays to the State an annual license of $25 and each retailer pays from $5 to $20 for each place of business. Of the proceeds, the first $750,000 is credited to the common-school fund, the next $750,000 to the State equalization fund, and the remainder is divided equally between these two funds. Tennessee uses the annual proceeds of her State tax of 10 per cent on the retail selling price of cigars,

cigarettes, tobacco products, and snuff (according to the 1929 law) as follows: (1) $800,000 to guarantee an 8-month term in the rural elementary schools; (2) $200,000 for the State high-school fund; (3) $82,500 for a sinking fund for the retirement of the State's "rural school building and repair bonds" authorized in 1927, $225,000 for a sinking fund for the retirement of the State's university building bonds authorized in 1927, and the remainder is applied to the general State current school fund.

The severance tax.—Another State tax which has come into prominence during the decade is that levied on natural products of mines, quarries, forests, and rivers. It is proving to be a significant factor in the production of revenue where it is used. A number of States levy a tax of this type wholly or partially for educational purposes.

Legislation enacted in Alabama in 1927 provides for a production tax of 2½ cents per ton on coal, 4½ cents per ton on iron ore, and a tax of 3 per cent on the net value at place of production of all other minerals enumerated in the law. The proceeds are allotted to the State "educational trust fund." For the fiscal year 1928–29 taxes on these products amounted to $752,923.45.

A severance tax, chiefly for the benefit of schools, has been levied in Arkansas since 1923. The present rate is 2½ per cent of the gross market value of all products subject to the tax, excepting coal, which is taxed at 1 cent per ton, timber at 7 cents per thousand board feet, and manganese ore at 10 cents per ton. (In addition to these rates, levies on minerals, excepting coal, are provided for the benefit of the State geological fund.) The proceeds of the tax at rates indicated are allotted two-thirds to the State common school fund and one-third to the counties in which the revenue is produced. The portion returned to the counties is divided equally between the road and the school funds of the respective counties. The tax produces more than a million dollars annually.

Kentucky levies a tax of 1 per cent of the market value of all crude petroleum produced. This tax is for general State purposes, but any county may impose a like tax not to exceed one-half of 1 per cent, for roads, schools, or county purposes. The law has been in force throughout the decade. The State tax produced $101,238.93 for the fiscal year ended June 30, 1928.

Louisiana has levied a tax on products "severed from the soil or water" for more than a decade. Previously to 1922 the rate was 2 per cent on the gross value at place of production of all products and the proceeds were all placed in a State "severance tax fund" from which specific appropriations, chiefly for the various State educational institutions, were made. A new constitution having been adopted in 1921, the severance tax law was rewritten in 1922. By the terms of the new law, the tax rate was lowered to three-tenths of

1 per cent on oil and gas but left at 2 per cent on other products. In 1928 the tax rates were completely revised by fixing a schedule for each product based on a stipulated amount per unit of measure rather than a per cent of the gross value.

Under the 1922 law two-thirds of all proceeds were allocated to the State "severance tax fund." The 1928 law places all severance taxes collected in this fund except one-fifth of the collection on oil, gas, salt, shells, timber, sand, and gravel. This State fund, which has varied in annual amount during the decade from $2,000,000 to less than $1,000,000, was appropriated from 1922 to 1926 chiefly for the use of the State university and the Louisiana Polytechnic Institute; from 1926 to 1928 chiefly for all State educational institutions; since the year 1927–28 none of these institutions have received appropriations from this fund, but $750,000 has been appropriated annually for the purchase of free textbooks.

The 1922 law allocated one-third of the proceeds, not to exceed $200,000 annually to any one parish, from the tax on oil and gas to the parishes wherein such tax had been collected. An amendment in 1926 added one-third of the taxes collected on salt to this allocation. By provision of the 1928 law, one-fifth of all collections on oil, gas, salt, shells, timber, sand, and gravel is returned to the parishes wherein collected; provided that not more than $200,000 shall be returned to any one parish in a year. These funds are distributed among parish schools and such district governing authorities as have jurisdiction over the territory from within which the revenue is produced.

Since 1916, one-third of the proceeds of Oklahoma's gross production tax on certain specified minerals, crude oil, and natural gas has been returned to the counties wherein the tax is produced; two-thirds are credited to the general State fund for current expenses. The amount returned to any county is divided equally between the common-school fund and the road and bridge fund of such county. Legislation in 1927 provides that 25 per cent of the part (two-thirds) retained by the State, not to exceed $1,500,000 in any fiscal year, shall be credited to the "special common school equalization fund."

Pennsylvania in 1915 provided for a production tax on anthracite coal equal to 2½ per cent of its value at the mines; in 1921 the rate was lowered to 1½ per cent. Fifty per cent of the proceeds were credited to the State highway fund and 50 per cent returned to the counties wherein the taxes were produced for the use of cities, boroughs, and townships. Legislation in 1929 provides for the discontinuance of this tax after May 31, 1931. The 1923 legislature provided for crediting to the State school fund all income from forests, water powers, and water rights belonging to the State.

A "gross occupation" tax of 2 per cent has been levied in Texas since 1923 on the production of natural oil and sulphur. Since one-fourth of the proceeds of the occupation tax is allocated to the current State common-school fund, the oil and sulphur tax, which is essentially a severance tax, contributes directly to education. During the fiscal year ended September 30, 1928, the tax on these two products produced $5,062,583.98.

The provisions, mentioned above, for raising revenue for the schools do not exhaust the list of "new" sources of State school revenue, but they are among the most important ones of recent years. Since they are recent enactments, they indicate a developing tendency on the part of lawmakers to avoid the general property tax when additional State school funds are needed.

Other new sources of State school revenue.—A number of other new sources of revenue, such as the tax on hydroelectric power companies and on railroad, express, and telegraph lines provided in Alabama as a part of the 1927 educational program, the tax provided by the Louisiana Legislature of 1928 on the production of carbon black from natural gas, and the license tax provided by the 1927 Florida Legislature on dealers in automobile tires are proving effective in the production of State school revenue and as substitutes for the general property tax. On the other hand, provision has been made in a few instances for increasing the general property tax for the purpose of providing additional State school revenue. For example, Maryland provided in 1922 for a State school tax of 1½ mills on the taxable property throughout the State, and the Florida Legislature in 1929 provided, in addition to the required constitutional 1-mill levy already in force, for an annual school tax of one-fourth of a mill on the property of the State.

Various State licenses and miscellaneous items are gaining in importance as sources of State revenue, as shown by Table 5; many of these contribute to educational funds. However, notwithstanding the attempts to employ new sources of State revenue, as has been pointed out, the proportion of school costs borne by the State continues to decrease and the increasing proportion borne by localities continues to come in large measure by raising tax rates on tangible property.

Source of State school revenue.—Local school revenue, as has been pointed out, is derived chiefly from a special tax for education, but State school revenue is derived in large part from legislative appropriation from the general State fund. All the proceeds from State taxes levied especially for education, for the country as a whole, amounted to less than one-fourth of the total State school revenue in 1927–28. This is shown by Table 6.

TABLE 6.—*A percentage analysis of the amount and source of State school revenue, 1927–28*

States	Per cent of total public-school revenue derived from State source	Per cent of State school revenue derived from—			
		Income from permanent school fund	Appropriation from general State fund	Special tax for education	Other sources
1	2	3	4	5	6
Alabama	40.7	----------	54.5	45.2	0.3
Arizona	20.1	13.9	[1] 86.0	----------	.01
Arkansas	32.3	1.7	1.2	96.2	.5
California	19.5	2.2	96.8	1.0	----------
Colorado	3.2	97.5	2.5	----------	----------
Connecticut	2.8	14.2	85.2	----------	.5
Delaware	83.4	1.5	[1] 98.1	----------	.3
Florida	9.0	12.9	7.4	77.1	2.6
Georgia	29.3	----------	81.2	18.8	----------
Idaho	7.4	90.9	[1] 9.1	----------	----------
Illinois	5.9	.7	[2] 99.3	----------	----------
Indiana	7.8	17.2	5.9	76.2	.6
Iowa	4.3	22.4	77.0	----------	----------
Kansas	1.8	67.8	32.2	----------	----------
Kentucky	27.0	.1	.9	96.4	2.4
Louisiana	26.9	2.8	1.3	95.8	.01
Maine	30.1	1.0	5.7	93.2	----------
Maryland	18.2	7.9	28.4	63.5	.1
Massachusetts	10.3	3.9	96.1	----------	----------
Michigan	16.2	2.3	2.5	[3] 95.2	----------
Minnesota	20.2	21.6	58.9	19.5	----------
Mississippi	31.9	1.1	[2] 98.9	----------	----------
Missouri	10.1	25.0	74.9	----------	----------
Montana	12.5	70.8	2.4	26.6	----------
Nebraska	5.6	55.0	28.0	----------	16.9
Nevada	21.6	35.2	12.1	52.7	----------
New Hampshire	10.0	.2	53.5	45.9	.1
New Jersey	20.0	2.7	.1	97.2	----------
New Mexico	29.8	58.7	12.5	25.0	3.8
New York	26.8	----------	[1] 100.0	----------	----------
North Carolina	11.2	1.1	98.9	----------	----------
North Dakota	10.0	76.8	23.2	----------	----------
Ohio	4.9	4.2	95.8	----------	----------
Oklahoma	7.1	81.6	1.1	17.3	----------
Oregon	13.4	14.9	1.6	83.3	----------
Pennsylvania	16.9	.3	99.7	----------	----------
Rhode Island	15.3	.6	99.3	----------	----------
South Carolina	23.7	.4	99.5	----------	----------
South Dakota	9.3	96.8	3.2	----------	----------
Tennessee	24.8	2.8	2.9	94.2	----------
Texas	35.7	7.8	92.0	----------	.2
Utah	35.1	8.5	91.5	----------	----------
Vermont	14.0	8.9	43.4	43.7	3.9
Virginia	26.6	3.1	94.4	----------	2.5
Washington	30.4	12.7	1.1	82.8	3.4
West Virginia	7.7	1.9	50.0	35.4	2.5
Wisconsin	10.2	6.8	93.1	----------	----------
Wyoming	32.7	47.2	4.9	----------	47.9
United States	16.4	6.8	67.9	24.5	.7

[1] No separation of funds. [2] Chiefly from general fund. [3] Schools receive major part of general fund.

Column 1 shows the per cent of total school revenue which was derived from State sources. This column is included in order that the reader may see the significance of State grants in relation to their source.

Permanent school funds have played an important part in American education. They now yield a small per cent of the yearly revenue produced by all States. In a few States, as indicated by column 2, the income for these funds is of great importance.

LOCAL SCHOOL SUPPORT

It was shown by Table 4 that the percentage of the total public-school revenue derived from State sources decreased during the decade and that, with a few exceptions, public-school support in this country is chiefly a matter of local endeavor. Recent investigations show that wherever local school district support is the rule, striking inequalities between schools exist. Some communities have adequate taxing wealth and are quite able to provide satisfactory school facilities, while many less favorably situated are unable to provide, even by taxing themselves to the limit, more than rudimentary educational facilities.

The situation described has developed in spite of efforts to prevent it. In practically all investigations concerning school finance attention is directed to the evils produced by the small district system of school support and definite recommendations are made embodying relief for local school taxing units. The chief relief measures proposed are (1) larger local taxing units—as a step toward economy and in order to even out some of the inequalities between very small school districts, and (2) adequate State school funds, in order to guarantee satisfactory school facilities for all the children of the State and as a step toward equalization.

Increasing local school tax rates.—Expanding school systems in many States have, during the decade, found school tax rate limitations a hindrance to growth. This situation has induced legislatures to permit local districts to levy higher rates and to alter the restrictions relating to school bond issues in several instances.

Legislation during the biennium 1928–1930 provided for higher maximum rates in California, Colorado, Florida, Kentucky, Michigan, Montana, Pennsylvania, and Texas. In most cases the additional rate may be levied only when authorized by vote of the district and for a special purpose. For example, the 1929 legislature in Colorado provided that the board of education of a county or union high-school district may submit to the voters the proposition of making a levy for high-school purposes, above the 4-mill limit, up to 6 mills, when it is thought a 4-mill levy will be insufficient. A constitutional amendment voted in Kentucky in 1930 permits boards of education of cities of the first five classes, with consent of two-thirds of the voters, to incur school bond indebtedness not to exceed 4 per cent of the taxable valuation of the district in which such city is

located. Previous to this amendment the bonded indebtedness which city-school districts in Kentucky could incur varied from 2 per cent in fourth-class cities to $5,000,000 in first-class cities.

Enlarged taxing units.—One argument advanced for consolidation of schools is that an enlarged organization having more resources at its command than a small one can provide better educational facilities. However, when schools unite it does not necessarily mean enlarged taxing units. A large new school building in a city-school system may replace two or more old buildings in different parts of the city. Similarly the board of education of a township, or a county, school system may consolidate schools without affecting the size of the taxing unit. But thousands of small school districts have joined with others during the decade to form larger taxing units, thereby greatly reducing the number of small ones.

The rural high school, common throughout the country, is in many States the result of an enlarged taxing unit. One high-school district frequently includes the territory of and levies taxes on the property in several small elementary school districts for purposes of secondary education. By this means many communities have been able to secure funds for public-school improvement and extension and at the same time reduce the per capita cost of education.

Attention has already been called to the fact that legal provisions for State funds seldom keep pace with the increasing needs of a growing school system and that localities are obliged to levy an ever increasing tax as costs increase. The same may be said concerning legal provisions for funds from an intermediate unit, as the county. Consequently we find that for the country as a whole, the county provides a smaller percentage of the total public-school revenue than it did 10 years ago. In 1920 the per cent of school revenue derived from county sources was 11.4 of the total, in 1924 it was 10, and in 1928 it was 10.8. There are a few exceptions to this trend. County boards of education in Georgia under authority of legislation enacted in 1922 have increased the percentage of county school revenue since that date. The per cent of total school revenue derived from county sources in Virginia in 1920 was 12.8, while in 1928 it was 57. County units of school administration, including taxing provisions, have been strengthened in a few States. In such cases the county usually assumes a more important place in the production of school revenue.

NEW STATE GRANTS FOR EDUCATION AND THEIR DISTRIBUTION

In attempting to help localities meet the increasing costs of education States have made various grants in the form of appropriations

for certain educational activities. The ad valorem school tax and the regular appropriation for public schools have been increased in a few instances. Grants for special purposes have been made recently for school libraries, for the education of atypical children, for pupil transportation, for consolidation, and for school buildings. In a number of instances the size of the grant has been increased for a certain length of time; in others the increase has been made permanent.

State aids such as those mentioned above performed important functions in educational development during the decade. They were made to relieve localities of a part of their school-tax burden or to promote certain activities. Hence they were distributed on the basis indicated in the grant when made for a special purpose, or usually on the basis of scholastic population when an increase in the general appropriation or ad valorem tax was granted. Other State aids of far-reaching importance in recent years are those made specifically to bring about equalization of educational opportunity. This is accomplished in the method of distribution. These grants are discussed at some length on the following pages.

Equalization funds.—Reviewing the conditions under which State grants for education have been made in our country, we find a number of different conceptions concerning the purposes of these grants. Swift states in his review of school finance for 1920–1922:[7]

> New York passed an act in 1812, three years prior to the first distribution of the revenue of her permanent common-school fund, requiring that in order to participate in the income of this fund the local community must raise by tax an amount equal to its share of the State fund. From this time on, in a considerable number of States, the purpose of State aid was conceived to be twofold: First, to ease the burden of local communities; second, to stimulate local effort. In general, State aid was distributed among counties and districts on the basis of total population or school population. No attempt was made to recognize differences in the ability of various communities to provide school revenues as represented by differences in valuation, or to recognize differences in effort as represented by differences in local school-tax rates. During the past few years, however, numerous reports and studies have pointed out the supreme importance of these factors, with the result that there has come into prominence a new conception of the fundamental purpose of State aid, namely, that of evening out the inequalities in school revenues and school opportunities existing among the various communities of the State and which in the last analysis are due to factors which the local communities frequently are unable to modify.

Since the time when Professor Swift wrote the above, inequalities in taxing wealth between school districts have been growing more pronounced. Wealth continues to concentrate in certain centers, while improved methods of transportation make it easier for working people to reside farther from their place of employment. There

[7] Swift, Fletcher Harper. A Biennial Survey of Public School Finance in the United States, 1920–1922. Washington, Government Printing Office, 1923. p. 19–20.

are many residence communities to-day, with little taxable wealth but dense populations of school age whose bread earners are employed in adjoining school districts with high valuations but few children. Furthermore, the great farm depression of the past few years has rendered many rural districts, and even whole counties, incapable of supporting satisfactory school systems.

Conditions such as these have been clearly pictured in a large number of recent survey reports which have received wide circulation. As a consequence a widespread interest in the subject of equalization of educational opportunity and of school support has been created and it is recognized to-day as never before that a State should distribute aid in such a way as to equalize the burden of supporting at least a minimum educational program in every school. That the importance of equalization is recognized is evidenced by the fact that one State after another has during the decade provided funds especially for distribution on the basis of financial ability to support a minimum program.

Certain data concerning funds in 20 States, which are either designated as equalization funds in the legislation establishing them or which are distributed chiefly for equalization purposes, are presented in Table 7. The States named do not comprise a complete list of those providing such funds, for provision has been made in no fewer than three-fourths of the States for equalizing to some extent the cost of a minimum educational program. Interesting features appear in provisions recently made in each State. The details shown in the table are typical of those in other States.

TABLE 7.—*Equalization funds, their relative importance, source, and distribution in 20 States*

State	Present law substantially the same as in—	Annual amount of fund	Per cent of total State aid devoted to equalization in 1927–28 [1]	Period for which fund is provided	Source	Distributed to school corporations
1	2	3	4	5	6	7
Alabama	1927	$900,000	14	Year beginning Oct. 1, 1927; annually thereafter.	Proceeds of railroad, telegraph, telephone, express, hydroelectric power, coal, iron ore, severance, sleeping car, and tobacco taxes.	Meeting specified requirements, including a minimum school tax, and unable without such aid to maintain minimum State standards.
Arkansas	1927	$1,500,000 [2]	30	Biennium ending June 30, 1931.	One-half proceeds from tobacco tax and $750,000 from annual receipts of the income tax.	Do.
Colorado	1921	Sufficient to guarantee a minimum salary of $75 per month per teacher.	18	Annually	Permanent school income fund	Do.
Connecticut	1923	Ranges from 10 per cent to 75 per cent of teachers' salaries in certain towns.	30	Annually	Appropriation from State general fund.	Meeting certain requirements and making application for aid in towns having valuations none of which exceed $3,500,000.
Florida [3]	1927	$831,972	33	Biennium ended June 30, 1929.	One-third of proceeds of a 1-cent tax on gasoline, of one-fourth mill general property tax, and of the interest on State funds deposited in banks.	Meeting specified requirements, including a minimum school tax, and unable without such aid to maintain a school term of 120 days.
Georgia	1927	$1,500,000 [4]	20	Annually	Proceeds from a tax of one-half cent per gallon on gasoline and of 1 cent per gallon on kerosene.	Meeting certain requirements, including that of a local 5-mill school tax.
Kentucky	1930	$1,250,000		do	Appropriation from State's general fund.	Meeting specified requirements, including a minimum school tax, and unable without such aid to maintain a seven month's term and pay the teachers $75 per month.
Michigan	1927	$2,000,000 [5]	14	do	Appropriated from State's general fund.	Paying a local tax of more than 10 mills and having average school membership in excess of the average for the State for each $100,000 of assessed valuation.

[1] Estimated.
[2] One-fourth of annual appropriation is set aside to be used by State board of education for erection of new school buildings in natural school centers.
[3] The entire public-school fund in Florida, consisting of two-thirds of funds from the three sources mentioned for biennium ending June 30, 1931, is distributed on basis of aggregate attendance.
[4] Approximate amount for year ended December 31, 1928.
[5] In addition 5 per cent of primary school interest fund is apportioned on the same basis.

TABLE 7.—*Equalization funds, their relative importance, source, and distribution in 20 States*—Continued.

State	Present law substantially the same as in—	Annual amount of fund	Per cent of total State aid devoted to equalization in 1927–28	Period for which fund is provided	Source	Distributed to school corporations
1	2	3	4	5	6	7
Mississippi	1926	$2,477,968.30	45	Biennium ending September, 1931.	Appropriation from State's general fund.	By State board of education in such manner as to equalize public-school terms as nearly as possible throughout the State.
Missouri	1927	Sufficient to pay total legal claims of districts eligible for aid, $1,710,000.[6]	20	Annually	Annual school fund, consisting of income from State public school (permanent) fund and one-third of the annual revenue of the State.	Four types of districts unable to maintain specified standards, provided requirements are met, including maximum local school tax rates.
Montana	1927	$328,672 [7]		do	One-half of income from inheritance, metal mines, and oil gross production tax and receipts from Federal Government from oil royalties.	For the purpose of equalization providing as nearly as possible nine-month terms in all public schools.
New Jersey	1926	10 per cent of proceeds of State school tax.	10	do	Proceeds of State school tax	Which "contain too little ratable property to afford adequate local school taxes," according to reports submitted to State board of education.
New York	1925	Difference between allowance per teacher and proceeds of a local 6-mill school tax.	20	do	State general fund	Meeting specified requirements, including a minimum school tax, and unable without such aid to maintain State standards.
North Carolina	1927	$5,250,000 [8]	88	Biennium ending June 30, 1931.	do	Needing funds in addition to those produced by a 4-mill tax levy to support the State's minimum educational programs including a 6-month term.
Ohio	1923	$4,000,000	75	Biennium ended Dec. 31, 1930.	State general fund	Meeting specified requirements, including a minimum school tax, and unable without such aid to maintain State standards.
Oklahoma	1927	$1,500,000 [9]	25	Annually	One-sixth of the proceeds of the gross production tax on minerals not to exceed $1,500,000.	Levying the maximum 15-mill school tax and meeting certain State requirements, including an 8-month term.
South Carolina	1924	Difference between total scheduled expense for teachers' salaries and proceeds of a 7-mill county school tax amounted to $3,500,000 year ended June 30, 1930.	80	do	Appropriation from State's general fund.	To equalize taxation and educational opportunity in every school district in the State for 6 months, provided a 7-mill tax is levied and other conditions met.

Tennessee	1929	$800,000	20	Annually	Tobacco sales tax	(Rural elementary schools.) In order to guarantee an 8-month term and a minimum program.
Texas	1925	$2,500,000 [10]	20	Biennium ending Aug. 31, 1931.	Appropriation from State's general fund.	In rural areas in the form of grants when certain requirements are met.
Virginia	1930	$500,000		Year ending June 30, 1931.	do	For the equalization of elementary rural educational opportunities according to rules prescribed by State board of education.

[6] Estimated for year ended June 30, 1929.
[7] For year ended June 30, 1929.
[8] An additional appropriation of $1,250,000 for each year of the biennium for the support of an 8-month term.
[9] In addition $500,000 was appropriated from general fund for biennium ending June 30, 1931, to supplement regular fund.
[10] $1,600,000 was appropriated for each year of preceding biennium.

The dates in column 2 indicate recent legislative interest in the subject of educational equalization. During the biennium, 1928–1930, at least 15 States enacted new equalization laws, strengthened those already in force, or increased the appropriation for equalization grants. Similar legislation of great importance was passed two years earlier in a number of States. For example, the 1927 Alabama "Unified Education Bill" included an annual appropriation of $900,000 for the equalization fund and the 1927 Illinois law providing a new method of distributing the State school fund guarantees an equalization quota to districts unable to maintain certain standards.

The Kentucky Legislature in 1930 provided for an annual equalization fund of $1,250,000. Two constitutional amendments creating equalization funds were proposed by a special session of the Louisiana Legislature in September, 1930, and were voted favorably by the electorate in November of the same year. One amendment provides that 1 cent additional per gallon shall be levied on the retail sales of gasoline and that one-half of the proceeds shall be known as the State equalization fund for schools for the purpose of aiding the poorer parishes on basis of their educational needs. It is estimated that this tax will produce a million dollars annually for the equalization fund, and since it went into effect at once, plans for disbursing the proceeds have already been set up. The second amendment directs the Legislature to provide an annual minimum State school fund of $12 per educable child, $10 of which shall be apportioned to the parishes on the basis of the school census and the remainder when available, estimated at $300,000, shall be assigned to the State equalization fund. The 1930 Utah Legislature also proposed a constitutional amendment creating an equalization fund. This amendment was voted favorably in November of the same year. It directs the legislature to provide for an annual fund amounting to $5 per school child.

Among the States which provided for larger equalization funds during the biennium were Arkansas, Illinois, Michigan, Mississippi, New York, North Carolina, Ohio, Oklahoma, Tennessee, and Texas. Of these, Arkansas appropriated under the 1929 law to the equalization fund, which had been established in 1927, $750,000 a year from the proceeds of the newly created income tax and an equal amount from the tobacco tax; Illinois increased the State distributive fund from which the equalization fund is derived 25 per cent; Michigan and North Carolina each doubled their appropriations for equalization 1929; Texas increased the annual amount for the biennium 1929–1931 over that for the preceding biennium from $1,600,000 to $2,500,000.

Percentages in column 4 of the table, estimated in a few cases, show that the equalization grants ranged from 88 per cent of the money provided by the State of North Carolina to 10 per cent in New Jersey. These percentages have added significance when the extent of State participation in public-school costs is known. For this information the reader is referred to Table 6 of this study.

Statutory provision for equalization funds in most instances stipulates the amount to be appropriated for each year; in a few States the amount is determined at the time the appropriation is made. The tendency in this respect seems to be toward the former plan. In 7 States a part or all of the proceeds of certain taxes are assigned to these funds; in 10, appropriations are made from the general State fund; while in 3 they are derived from some other State school fund. The method of distribution is based on the inability of the local school corporation to provide minimum standards in all cases with a wide variation in the details of the plans.

It has been pointed out that State grants have recently been made for various purposes. Obviously these are all made in order that education may be brought to all sections of the State. In the method of distributing school funds the question of equalization is frequently overlooked. But the foregoing description indicates that the ability of a school corporation to provide adequately is more generally recognized now than ever before as an important factor to be considered in framing legislation for State school support.

Procedure based on research.—A review of this kind can not be all inclusive. Many matters of importance which have developed in the field of educational finance must be omitted. However, this review should not close without at least a word concerning the development of the dominant tendency present throughout the country in the formation of legislation relative to school finance. This tendency has been toward a procedure based on careful research. Whether the question for consideration is one pertaining to the raising of revenue, taxing units, or distribution of funds, legislative assemblies are demanding as never before factual data before taking action. Official commissions have been authorized in no less than half the States during the past six years to bring together information to guide in formulating programs for financing the schools. Among the States in which such commissions were authorized during the biennium 1928–1930 are California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, North Carolina, and Pennsylvania.

This tendency is due chiefly to the influential work and leadership throughout the decade of such men as Professors Clark and Mort, of Columbia University; Swift, of California; and Morrison,

of Chicago; and that of various departments of education. The reliable information now available has brought the country to a realization of the fact that the time is at hand when State governments must give more attention to matters pertaining to educational finance, if education is not to retrench; certainly this is true if education is to continue the forward-looking program of previous decades. Legislatures are greatly interested in adequate school support, but, more and more, careful research will precede important legislative action concerning matters of educational finance.

CHAPTER II

ELEMENTARY EDUCATION

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Contents: *I. What is the Elementary School:* Organization, Enrollment, The Staff, The School Year, The Cost; *II. The School Program:* Method in the Elementary School, Progress in Curriculum Construction, Textbooks and Other Instructional Materials; *III. Progress of Pupils:* Success and Failure, Factors Influencing Progress; *IV. Supervision of Instruction:* From the State Department of Education, Within City School Systems; *V. Research and Investigation in Elementary Education:* The Service of Research to Elementary Education, Agencies Conducting Research, Summary.

INTRODUCTION

It is not a simple matter to attempt to summarize the achievements or point out the apparent tendencies in an educational program providing for 21,000,000 children, engaging the services of 600,000 teachers, and involving an annual expenditure, with public secondary education, of more than $2,000,000,000. Neither is it a simple matter to present a picture of the status of an elementary educational system the individual units of which vary in size and consequent administrative and instructional problems from the 1-room school in a sparsely settled section with fewer than 10 pupils enrolled to a large city school in a densely populated city section with six or eight hundred pupils enrolled. Still a third complicating factor is that of the elementary school's rapidity of change—in type of organization, in type of curriculum, in variety of educational provisions, in instructional practice. There are, however, certain evident factors of progress which deserve special comment.

1. The years 1928–1930 saw considerable progress in the development of administrative and instructional techniques for getting progressive educational theory into practice in the schools. The theory of learning as an active rather than an absorptive process is not new, but many schools have made commendable gains in providing the schoolroom equipment, courses of study, and instructional materials which have helped to put the theory into practice. A continued interest in creative education has broadened from the earlier em-

phasis upon creative writing in upper elementary grades to creative activity in many other forms of expression, such as constructing, illustrating, dramatizing, and modeling. Interest in creative education has continued in lower grades through self-initiated activities.

2. Elementary schools are more and more surrendering their traditional isolation as an agency for instruction alone and are sharing in the responsibility for pupils' physical, recreational, educational, and social welfare in hours outside the regular school day. This is shown in various ways: First, by the types of positions newly established or increased in number, such as visiting teacher, home visitor, social-case worker, after-school recreational director, director of parent education activities, school counselor; second, by the increased use of school facilities after school, on Saturdays, and during holidays; third, by the increased attention schools are giving to the matter of coordinating their programs with programs of other institutions or organizations interested in the welfare of children, such as libraries, recreational agencies, boys' and girls' clubs and organizations, juvenile courts, Red Cross, and community clinics. This coordinated program of health, education, and social welfare for its children is something which many communities are striving hard to attain.

3. The instructional possibilities of the radio and the sound films have received more than usual attention. Such programs of education by radio as the State-wide School of the Air in Ohio, and those in the cities of Cleveland, Pittsburgh, New York, and Atlanta indicate the possibilities of extending exceptional opportunities to a great number of schools. The popularity of those sound films which have been developed for school use and their possibilities of value through the combination of visual and auditory impression promise to make this medium of instruction of increasing use.

4. The interest in educational tests and measures continues, as is evidenced by numbers of new standardized tests issued during the past biennium and by the continuing reports of city, State, and even nation-wide testing programs. This interest in testing educational products is extending somewhat more than formerly to a scientific measurement of techniques and practices as well, as is shown by the recent tendency to question the desirability of homogeneous grouping, the worth of individualized instruction, the effectiveness of techniques of drill, and many other established practices.

5. During this period of a serious oversupply of teachers a closer scrutiny of the applicant's training for a particular type of work has been possible. The elementary school is still a long way from exerting the same care in the selection of its teachers for certain ages or types of children or for particular fields of work as is shown in

selecting teachers of the so-called special subjects. However, some progress seems to have been made in working toward acceptable standards of preparation for school librarians, and for teachers of elementary school science, literature, and social studies.

6. In the widespread activity in curriculum construction a definite intention can be seen of providing courses of study for pupils of different learning interests, difficulties, or capacities. Hence, Detroit publishes a course in English for the foreign born, El Paso a course in functional English for children of Mexican parentage, New York State Education Department a course in English for seventh and eighth grade vocational schools, Denver a publication on the differentiation of curricula for slow-learning children.

Other indications of progress or change, such as in growth in enrollment, development of supervisory systems, organization of nursery schools, provision of instructional materials, and others will be noted in the following pages.

I. WHAT IS THE ELEMENTARY SCHOOL?

ORGANIZATION

Public-school organization of elementary education in the United States is commonly accepted to include kindergartens and the first six grades. This definition is based on the trends and tendencies of the past 10 years in which an increasing number of children are offered kindergarten education and in which the high-school program accepts pupils at the seventh-grade level.[1] There is also a tendency to make provision for children of preschool or nursery age. Enrollments in the schools of the country as a whole, however, indicate that the majority of children do not attend kindergarten and that they remain in elementary schools through the seventh or eighth grade. Progressing normally a child who starts school at 4 or 5 years of age in the kindergarten passes at 12 into the junior high school or at 14 into a 4-year senior high school.

Factors controlling upper and lower grade limits.—The presence of kindergartens at the lower limit of the school unit and an upper-grade limit of the sixth, seventh, or eighth grade are dependent upon State laws or regulations and upon local rulings. All but four States provide for the establishment of kindergartens through permissive or mandatory legislation or by an established low school-entrance age. The majority of school systems in cities having populations of 30,000 or more take advantage of these laws. Small towns and rural districts face problems of transportation for children enrolled in the

[1] Seventh Yearbook, The Department of Superintendence, National Education Association, 1201 Sixteenth Street NW., Washington, D. C., 1929.

half-day kindergarten session, of organization of grade groups where the enrollments are small, and of financial support for kindergartens. Such problems have retarded the establishment of kindergartens in these districts.

It is well to keep four facts in mind when considering school entrance: (1) Kindergarten attendance is still voluntary although a limited number of cities report that it is a prerequisite for admission to first grade.[2] (2) Compulsory school entrance ages are 7 and 8 years in all but three States,[3] in which it is 6 years. (3) The traditionally accepted age for school entrance is 6. This is a permissive age for entrance in 30 States, while 13 more States lower this to 5 years, one to 4 years, and one raises it to 7 years. (4) In a limited number of communities interest in the education of children below kindergarten age has resulted in the establishment of demonstration or laboratory nursery schools.

Upper-grade limits of the elementary school are determined largely by the type of high-school organization maintained and by the length of school life provided. In school systems maintaining the elementary and undivided high-school organization, the upper elementary grade is customarily the eighth. In the case of communities maintaining an 11-year school program the upper elementary grade is the seventh and, in a few communities still offering a 13-year school life, this upper grade is the ninth. Communities offering an 11-year school life and a junior high-school organization are fairly evenly divided between apportioning five or six grades to the elementary group.[4]

During the process of reorganization in secondary education there is great variety in grade distribution even within a single school system. In one school there may still be eight elementary grades, in another seven and in still another but six. The tendency is toward a general acceptance of the K6–3–3 plan of organization but this and the K6–6 plan and the addition of two years of junior college tend to be modified according to local needs and ideals. A clear notion of the present stage of reorganization is given in the chapter on secondary education of this biennial report of educational progress. In the tables presented in that chapter, the lower grade designated for the junior high school or for the senior high school in instances where no junior high-school organization has been effected, may be taken to indicate the grade above that which completes the elementary unit.

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[2] Kindergarten-Primary Articulation. Josephine MacLatchy. Educational Research Bulletin, College of Education, The Ohio State University. Vol. IX, No. 13.

[3] Public-School Attendance Ages in the Various States. Ward W. Keesecker. Office of Education, Washington, D. C. Circular No. 10, March, 1930.

[4] Secondary Education. Carl A. Jessen. U. S. Bureau of Education. Bulletin, 1929, No. 22. Table 2.

For purposes of this report the following tables give a fairly definite picture of the limits within which the elementary school is organized. From them it is evident that the larger the city the greater are the chances that a child may attend kindergarten, and that the smaller the community the greater the chances are that a seven or eight grade elementary curriculum is required and that there is no junior high school organization.

TABLE 1.—*Lower-grade limits for elementary schools; data from 3,248 cities and towns* [1]

Population: Size of cities reporting	Number of cities reporting lower-grade limit of—			Per cent of cities reporting lower-grade limit of—		
	Kindergarten	Grade 1	Total	Kindergarten	Grade 1	Total
100,000 or more	61	4	65	93.85	6.15	100
30,000 to 100,000	134	36	170	78.82	21.18	100
10,000 to 30,000	229	166	395	57.97	42.03	100
2,500 to 10,000	359	579	938	38.27	61.73	100
Below 2,500	325	1,535	1,860	17.47	82.53	100
Total	1,108	2,320	3,428	32.32	67.68	100

[1] Data from Table 1, Bulletin, 1930, No. 30, Kindergarten-Primary Education. A Statistical and Graphic Study.

TABLE 2.—*Upper-grade limits for elementary schools; data from 738 cities of 10,000 population and more* [1]

Population: Size of cities reporting	Number of cities reporting upper-grade limit of—				Per cent of cities reporting an upper-grade limit of—			
	Grade 5	Grade 6	Grade 7 or 8	Total	Grade 5	Grade 6	Grade 7 or 8	Total
100,000 or more	4	48	16	68	6	70.5	23.5	100
30,000 to 100,000	3	117	63	183	1.7	63.9	34.4	100
10,000 to 30,000	7	218	262	487	1.4	44.8	53.8	100
Total	14	383	341	738	2	52	46	100

[1] Data from Table 7, Bulletin, 1929, No. 34, Statistics of City School Systems, using the lower grade of the high-school organization as the one above the upper-grade limit for the elementary school. The column of seventh and eighth grades includes records from junior high school organizations which begin with grade 8 and from cities reporting only a senior high school organization.

Classes for exceptional children.—For the education of children having mental or physical handicaps or expressing exceptional ability, approximately half of the school systems in cities having populations of 10,000 and more provide special classes. Many State-supported institutions care for children having aggravated cases of physical and mental disorders. These institutions serve both rural and city districts.

Special classes provided in city school systems care for children mentally deficient or backward, anemic or tuberculous, deaf or hard of hearing, blind or partially seeing, crippled, speech defective, delinquent or unstable, and gifted. The type of class most fre-

quently organized is for the mentally deficient or backward child. The order in which the classes have been listed indicates the frequency with which they occur as reported from cities having populations of 10,000 and over.

The importance of these classes in the elementary-school organization is being so widely recognized that detailed analyses of the service as now rendered and of the problems involved are given in Chapter XI of this biennial report entitled "Education of Exceptional Children."

Nursery education.—A description of elementary education—the beginning of a child's school experience—would be incomplete without recognizing the present interest in educational programs for children of preschool age. This interest has developed during the past decade and the preschool child has been the center of attention for a steadily increasing group of scientific workers interested in child development.

No fixed programs are yet accepted for nursery education and the suspended judgment of workers in this field as to what constitutes the most adequate environment, guidance, and development for young children is one of the safeguards to sound growth for this new movement. To aid in maintaining a high standard for the program of work in nursery schools a statement of minimum essentials [5] was issued by the National Association for Nursery Education, the name accepted in 1930 for the organization which developed from the original National Committee on Nursery Schools. In this pamphlet objectives of nursery-school education are described as well as standards for the organization and maintenance of the schools. The associations composed of teachers and leaders in the many fields of education and science concerned with phases of child development, have conducted three biennial conferences at which pertinent and practical problems of nursery-school education have been discussed. Printed reports of two of these conferences have been made available.[6]

But four nursery schools were reported as organized in or before the year 1920. In 1930 there were 226 schools. Of these 109 were reported to the Office of Education between 1928 and 1930, an increase of 93 per cent.

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[5] Minimum Essentials of Nursery School Education. Subcommittee of the National Committee on Nursery Schools. National Committee on Nursery Schools. Rose H. Alschuler, secretary, 795 Lincoln Ave., Winnetka, Ill., 1930.

[6] Conference on Nursery Schools. Report of the Second Conference of Those Interested in Nursery Schools, held in New York City, Apr. 22–23, 1927. National Committee on Nursery Schools. Conference of Nursery School Workers, called by National Committee on Nursery Schools. Report of third conference, Oct. 23–26, 1929. National Committee on Nursery Schools. Rose H. Alschuler, secretary, 795 Lincoln Ave., Winnetka, Ill., 1930.

During the past biennium a special effort has been made to carry educational programs for preschool children into the homes and into institutions giving them partial or full day care. The need for such programs has been shown in studies made by a committee of the White House Conference which surveyed and analyzed the human and material elements in the environments surrounding young children.[7]

ENROLLMENTS

The elementary-school population.—Slightly more than 21,000,000 children were enrolled in the public elementary schools of the country in 1928. The increase in enrollment for the biennium 1926–1928 was so small as to suggest that there was very little increase in the population of school age during that period and also that elementary education is accepted as a part of the life of practically all the children living in the United States.

Of every hundred children enrolled in elementary schools of the United States 44 are in school systems of cities having a population of 2,500 or more and 56 are in school corporations having less than 2,500 population. No appreciable differences in this ratio for urban and rural[8] school enrollments appear in the biennium 1926–1928, but during the decade 1918–1928 city-school enrollments increased 22.4 per cent while rural-school enrollments decreased 9.6 per cent. This change doubtless reflects the general trend of population movement from the country to the city. It may also suggest consolidation of rural schools with larger school systems.

Consolidated schools have increased on an average of 1,000 yearly during the past decade.[9] There has been a corresponding annual decrease of five thousand 1-room schools during this same period. The 1-room school, with a single teacher covering all subjects of the curriculum for the eight elementary grades, is still the type of school which most of the children living in rural districts attend.

The composite type of population of the United States is a problem which materially affects the work of public schools, particularly in the elementary grades. The distribution of nationalities for the 1920 census shows 34 per cent of the population to be either foreign born or of foreign-born parents and 10 per cent to be negroes.

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[7] White House Conference, 1930. Addresses and Abstracts of Committee Reports. New York, The Century Co. 365 pp.

[8] With the wide variety of interpretation among the several States of what constitutes a rural district it is difficult to make comparable groupings of school enrollments throughout the country according to classifications of urban and rural, e. g., in the State of Mississippi any community having a population of 1,000 constitutes a "city" and in Massachusetts "city" schools are only reported from communities having a population of 25,000 and more.

[9] Rural School Consolidation. Timon Covert. Pamphlet No. 6. U. S. Office of Education, June, 1930.

Of the children between the ages of 5 and 13 attending schools, 28 per cent are foreign born or of foreign-born parents and 9 per cent are negroes. The following table shows the degree to which different racial groups take advantage of school opportunities:

TABLE 3.—*Percentage of United States population in each racial group 5–13 years of age attending school—1920 census*

Racial groups	Total number	Number attending school	Per cent attending school
Native white of native parentage	12, 190, 999	9, 762, 259	80
Native white of foreign parentage	5, 050, 578	4, 175, 546	82. 67
Foreign born white	423, 206	335, 570	79. 29
Negro	2, 255, 425	1, 474, 030	65. 35
Indians, Chinese, Japanese, and all others [1]	72, 739	43, 730	60. 1
Total	19, 992, 947	15, 791, 135	78. 9

[1] Comprises Filipinos, Hawaiians, Hindus, Koreans, Malays, Maoris, Samoans, and Siamese.

Problems of pupil-nationality confronting the elementary school teacher focus largely on two requisites for good citizenship—correct use of the English language and acquaintance with and an acceptance of certain desirable social customs. Language difficulties cause a large part of school retardation. Special attention is necessarily given to development of vocabularies, to diction, and to forms of oral expression to assure the pupils' intelligent understanding of lessons in such subjects as geography and history and in statements of arithmetical problems. Special emphasis in curricula is also necessarily placed upon social adjustments and habit formation.

There are wide variations among cities in the magnitude of the problem of educating children of different nationalities. These variations include cities in certain localities having in their populations a great majority of native whites; cities having an enrollment of negroes so large as to require dual school systems for white and colored children; cities having many Mexican children, with Spanish as their native tongue as in Tucson, Ariz., where the Mexican pupils constitute 48 per cent of the elementary-school enrollment; and cities having a large variety of nationalities and a large proportion of foreign children in the elementary-school enrollment as in Buffalo, where in one school having an enrollment of 320 pupils, 32 nationalities are found, and where 40.5 per cent of the total elementary-grade enrollment for the city is composed of children having foreign parentage.

For the next few years this problem of teaching children of foreign extraction in schools of the United States will not increase. Recent restrictions upon immigration due to unemployment have caused a 70 per cent reduction in the number of immigrants admitted to this country between the first five months of the present fiscal

year—July to November, 1930, and the five following months, December, 1930, to April, 1931—when the restrictive order began to function.

Grade distribution of enrollments.—More children are enrolled in the kindergarten and the first three grades than in grades 4 to 6. By far the largest enrollment occurs in the first grade, which is used as an adjustment as well as an entrance grade by the school systems in cities not maintaining kindergartens and by those providing kindergartens but enrolling a large entrance group of children who did not attend kindergarten. The drop in enrollment in the group of elementary grades starts with the fourth grade and the decrease is sharp from then on through the seventh and eighth grades. Decreases in the number of children attending school in these upper elementary grades are often attributed to economic pressure which requires children to go to work as soon as the law permits and also to the children's lack of interest in school work. Much is being done to correct this last difficulty through departmentalization of upper-grade work, through teaching methods which solicit the pupil's interest and effort, and through the junior high-school program.

The distribution of elementary-grade enrollments among the grades and the kindergarten and changes in this distribution during the decade 1918–1928 are shown by the following figures:

TABLE 4.—*Enrollments in kindergarten-elementary grades for 1918 and 1928 showing percentage distribution among grades and per cent of increase or decrease for the decade*[1]

Grades	Enrollments		Percentage distribution among grades		Per cent of change for decade, increase (+) or decrease (−)
	1918	1928	1918	1928	
Kindergarten	433,377	695,490	2.29	3.26	+60.5
1	4,323,170	4,171,037	22.85	19.61	−3.5
2	2,607,727	2,816,540	13.79	13.23	+8
3	2,524,215	2,661,977	13.34	12.51	+5.5
4	2,440,871	2,632,474	12.90	12.36	+7.5
5	2,128,086	2,435,466	11.25	11.46	+14.4
6	1,838,770	2,243,443	9.71	10.55	+22.1
7	1,482,675	2,021,636	7.84	9.55	+36.35
8	1,140,804	1,590,354	6.03	7.47	+39.4
Total	18,919,695	21,268,417	100.00	100.00	+12.4

[1] Data from Table 2, Bulletin, 1930, No. 5, Statistics of State School Systems.

The distribution with reference to kindergarten enrollment varies materially with the several States. For example, kindergarten enrollments in Michigan comprise 12 per cent and first-grade enrollments 14 per cent of the total elementary enrollment for that State. In Arkansas no kindergarten enrollments are reported and first-grade enrollments comprise 24 per cent of the total elementary enrollment.

Increases and decreases in enrollments for individual grades during the decade 1918–1928 show the major change in kindergarten enrollments. The decrease in first-grade enrollments may be due both to the decrease in birth rate and to a possible improved system of classifying school entrants. The increase in enrollments for the intermediate and upper grades may perhaps be attributed to the appeal of the junior high-school organization to pupils of this age. It may also be attributed to better administration of existing school attendance laws, and other factors.

THE STAFF

New services provided.—A typical elementary-school staff of not many years ago included a principal or head teacher and a teacher for each grade or class. Current directories of city-school systems testify to the new services provided in elementary schools.

Los Angeles: Sun room, agriculture, foreign opportunity, home economics, shoe shop, art leather, cobbling, manual education, gilding. adjustment, little B 1.

Berkeley: Adjustment, opportunity, playground director.

Providence: Home visitors, ungraded, auditorium, library, fresh air, discipline, backward children, assistant principal.

Seattle: Junior primary, foreign.

Minneapolis: Subnormal, physician, nurse, baths, speech, sight saving, visiting teacher.

Cincinnati: Foreign speaking, sight saving, remedial, open air, mental defective, library, auditorium.

It is evident that these illustrations fall into three classes: (1) New instructional offerings, (2) provision for pupils' special difficulties, and (3) adoption of certain responsibilities for social service.

Certification and teaching standards.—One influential factor in establishing teaching standards in the public schools is the granting of teachers' certificates. The duration of certificates, the grades or subjects included in the permission to teach, the preparation required of candidates, and the agencies authorized to issue certificates are a matter for State determination.[10] In many States overlapping exists among the types of certificates available for teachers, especially in the field of kindergarten-primary and general elementary grade work.

Many certification difficulties are enumerated and explained in a study made to help Nebraska [11] clear its own series of regulations and large number of authorized certificating agencies. Contributions for this study were made by 41 States. Among the 17 recommendations made at the conclusion of the study are the following: The

[10] Review of Educational Legislation, 1929–30. Ward W. Keesecker. Office of Education, Bulletin, 1931, No. 20.

[11] The Present Status of Certification in Nebraska. Herbert L. Cushing. Excerpts in Thirty-first Biennial Report of the State Superintendent of Public Instruction. Nebraska, 1929–1931. Pp. 46–70.

various (certification) classifications must be self-explanatory with reasonable distinction between the responsibilities of the different teaching positions; there should be a period of teaching apprenticeship; all certificates should be issued through one central office; there should be no distinction as to the number of years' training required for rural and urban schools; certificates should never be permanent in the sense that they are valid for life regardless of whether the holder stays in the profession and whether or not she makes additional professional preparation. The protection which well-organized certification programs can give to the schools is evident.

THE SCHOOL YEAR

Length of school term.—Children in the elementary schools of the United States have an average of 172 days for their school year. This is an increase of 10 days or about half a school month between the years 1920 and 1928. On an average the elementary school year is a week shorter than the year provided for secondary schools.

The length of school year varies among the States. The range in 1928 was from an average of 138.9 days in Arkansas to an average of 188 days in New Jersey. The school year also varies according to urban and rural districts. A shorter school year prevails in rural schools. One comparison [12] gives an average of 183 days in city schools and only 156 to the rural schools. Equalization funds [13] operating in three-fourths of the States are helping to increase the minimum length of school year in districts where education needs have increased disproportionately with their taxable wealth. Since these districts—usually rural—contribute to urban wealth, the urban areas are called upon to give financial assistance.

In several States specific statements are made indicating that benefits from the equalization fund are dependent upon a certain specified length of school term. For example, in Alabama the statement occurs "Beginning October 1, 1928, the county shall have provided for the preceding year a school term of at least 140 days, * * *" [14] and in New York State "No district shall be entitled to any portion of such school moneys (equalization fund) on such apportionment unless the report of the trustees for the preceding school year shall show that a common school was supported in the district and taught by a qualified teacher or by successive qualified teachers for not less than 190 days. * * *" [15]

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[12] Rural School Circular No. 27, Some Comparative Statistics of Public-School Education in Urban and Rural Communities. W. H. Gaumnitz. Office of Education. October, 1928.

[13] See section on equalization funds in Vol. I, ch. 1 of this biennial survey for a detailed treatment of the subject.

[14] State School Taxes and School Funds and Their Apportionment. Fletcher H. Swift and Bruce L. Zimmerman. Bureau of Education Bulletin, 1928, No. 29.

[15] Educational Law as Amended to July 1, 1930. University of the State of New York Bulletin No. 957.

In many cities the school year is extended by means of summer sessions and in three or four instances by an all-year organization of the schools. Summer sessions range from 5 to 10 weeks in length with the majority planned for a 6-weeks' term. All elementary grades are included by some school systems while others limit the summer work to the intermediate or upper elementary grades.

Approximately two-thirds of the large cities having 100,000 population or more offer summer session work for elementary school children; not quite a half (41 per cent) of the cities having 30,000 to 100,000 population, and a fifth of the cities having populations of 10,000 to 30,000 have summer sessions in elementary schools.

The all-year school[16] has been offered by a few city school systems as a plan for increasing economic and educational efficiency. Under this plan the school year is divided into quarters, the summer session becoming an integral quarter of the whole year's program. It is reported to obviate defects in the short summer session plan by considering it a term in which work is carried on at the normal rate of progress. A child may cover one grade and a third of another grade during the four quarters of the school year. One of the fundamental arguments in favor of this program is that a child will complete the school curriculum in a shorter time than by attending only the commonly accepted school year.

The day's program.—The majority of children enrolled in kindergartens attend school a half-day session of 2½ or 3 hours. It is interesting, however, to note that, particularly in small towns and villages, more than a quarter of the kindergarten enrollment is carried for the full elementary-school day.[17] A number of school systems in large cities are providing a full-day session to care for socially handicapped children and for children chronologically eligible but mentally unready for customary first-grade work.

In the first and second grades the median school day is 4 hours 35 minutes and 4 hours 45 minutes in length, exclusive of noon or recess periods.[18] The range in length is from 2¾ to 6½ hours. For the other elementary grades the median school day is 5 hours with a range from 4 to 6 hours.

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[16] All-Year School Organization. Warren A. Roe. Educational Method, Vol. X, No. 2. November, 1930.

The Effects of All-Year Schools Upon Pupil Advancement. George J. Brinkerhoff. Educational Method, Vol. X, No. 3. December, 1930.

Significant Movements in City School Systems. W. S. Deffenbaugh. U. S. Office of Education, Bulletin, 1929, No. 16.

[17] Kindergarten-Primary Education. A Statistical and Graphic Study. U. S. Office of Education, Bulletin, 1930, No. 30.

[18] Length of School Day. U. S. Bureau of Education, City School Leaflet No. 25, July, 1927.

During the school day time is divided among the many subjects and activities of the curriculum.[19] In keeping with the principles of teaching method underlying the activity type of curriculums and the "unit of work" method of teaching many variations from the generally accepted time schedule have been made. A flexible adjustment of time allotted to the school activities is encouraging group work and giving opportunity for attention to individual needs among the children.

The increasing number of subject fields to be included in the elementary-school curriculum and the resultant demand for teachers who have had specialized training in specific fields (such as science, industrial art, social studies) have occasioned variations in types of administrative organization in elementary schools. Departmentalization of certain subjects has long been common because of the advantages of localizing the equipment, securing teachers having special training, limiting the number of fields in which a teacher must be responsible, and providing pupils the opportunity of working with different teachers.

To provide an enriched curriculum which shall include science, dramatics, industrial arts, physical education, and to increase the capacity of a building by making the greatest possible use of all of a building's facilities at a given time, the platoon or work-study-play plan of school organization has developed and is in use in more than 217 cities in 40 States and Hawaii.

The cooperative group plan of organization which has been developed recently aims to secure for elementary school pupils enlarged curriculum opportunities and contact with teachers who are to some extent specializing in certain fields, such as the language field, the science field, the industrial and fine arts field, and the social studies field. The four or five teachers responsible for the work of the same pupils in these fields form the cooperative group to plan the program, discuss the activities and progress of their pupils, and by such coordinated planning to integrate rather than to separate the various fields of study.

Many public-school programs are also including some provision for out-of-school activities. In some instances these programs are carried on under the supervision of the school faculties; in other instances close cooperation exists between the school and municipal

[19] How Schools Use Their Time. Henry Carlton Mann. Teachers College Contributions to Education No. 333. Teachers College, Columbia University, 1928.

The Organized Recess. Marie M. Ready. U. S. Office of Education, Pamphlet No. 2. March, 1930.

Program Making in Small Elementary Schools. Hollis L. Caswell. Division of Surveys and Field Studies, George Peabody College for Teachers, Nashville, Tenn., 1930. 77 p.

recreation departments with out-of-school play supervised by the latter departments. In still other instances school property is loaned to outside agencies for recreational purposes—agencies which in turn supply programs for school children. A survey of enactments relative to the use of school playgrounds has been made recently by the Office of Education.

Statements indicating the effect of these enactments appear in many reports from superintendents of city schools, e. g.:

An extension of the playgrounds was authorized last spring. As a first experiment 12 schools in the city were open from 3.30 to 5.30 p. m. on each school day from the first Monday in May until the close of the school year. Experience with the after school use of playgrounds suggests the conclusion that their continuance, and possibly their extension, is justified.—*Seventy-Sixth Annual Report, Board of Education, St. Louis, Mo., 1930.*

Playground activities are conducted after school hours and on Saturday mornings during the spring and fall months, and throughout the summer, on 90 playgrounds and on 46 athletic fields. Approximately 500 trained teachers are engaged in this work. Fully equipped children's corners and athletic fields are generously patronized. The fact that, of this country's cities, Boston stands fourth in congestion of population indicates the importance of caring for the children on properly equipped and supervised areas set apart for this purpose.—*Annual Report of the Superintendent, Boston, Mass., 1929.*

Among other activities, aside from playground programs, for after-school hours are classes in art museums, music centers, garden clubs, religious education under supervision of the several religious denominations,[20] and the great variety of recreational programs provided by such agencies as the 4-H Clubs, the Boy and Girl Scouts of America, etc. A report of the White House Conference on Child Health and Protection estimates that such organizations serve 11,000,000 children.

THE COST OF ELEMENTARY EDUCATION

In 1927–28 the total enrollment in public elementary schools (including kindergartens) and public high schools was 25,179,696, and the total expenditure, including outlays, was $2,184,847,200. This is an average expenditure of $86.77 per pupil enrolled. Complete statistics are not available to show the proportionate cost for elementary and high school pupils, but returns from 16 States which report costs separately show a cost of $80.49 per elementary school pupil attending in 1927–28;[21] a similar computation of the returns from 15 States shows a cost of $169.96 per pupil attending regular and vocational high schools.

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[20] Study of the Week-Day Bible School in Oregon. F. F. Powers and H. P. Rainey. Elementary School Journal, 28: 460–466, February, 1928.

[21] Statistics of State School System. Office of Education. Bulletin, 1930, No. 5. Washington, D. C., Government Printing Office.

II. THE SCHOOL PROGRAM

METHOD IN THE ELEMENTARY SCHOOL

From Middletown comes a description of elementary education as it was observed in 1925:

> The school, like the factory, is a thoroughly regimented world. Immovable seats in orderly rows fix the sphere of activity of each child. For all, from the timid 6-year-old entering for the first time to the most assured high-school senior, the general routine is much the same. Bells divide the day into periods. For the 6-year-olds the periods are short (15 to 25 minutes) and varied; in some they leave their seats, play games, and act out make-believe stories, although in "recitation periods" all movement is prohibited. As they grow older the taboo upon physical activity becomes stricter, until by the third or fourth year practically all movement is forbidden except the marching from one set of seats to another between periods, a brief interval of prescribed exercise daily, and periods of manual training or home economics once or twice a week. There are "study-periods" in which children learn "lessons" from "textbooks" prescribed by the State and "recitation periods" in which they tell an adult teacher what the book has said; one hears children reciting the battles of the Civil War in one recitation period, the rivers of Africa in another, the "parts of speech" in a third; the method is much the same.[22]

On the other hand another quotation yields the following description of instruction:

> Here is a group of 6 and 7 year olds. They dance; they sing; they play house and build villages; they keep store and take care of pets; they model in clay and sand; they draw and paint, read and write, make up stories and dramatize them; they work in the garden; they churn, and weave, and cook.
>
> A group is inventing dances, which we are told, are for a pageant. In a darkened room films are being shown. A high-school class is teaching the seventh grade how to use the library in looking up information on a geography topic. A primary class is getting ready for an excursion on the morrow to a bakery. Another has just returned from a trip to a woolen mill. All about their room are bulletins and pictures depicting the history of clothing. * * *
>
> In another building we come across a shop where one is wiring a doll house for electric lights and another is making rough-and-ready reflectoscopes. Over all the walls are blueprints, maps, and posters, and models of things made and in the making—ships, steam engines, cars, airplanes, submarines, sets for scenes, and even the swords and bucklers of medieval armor.[23]

Everywhere these contrasts are apparent, for elementary schools are quite generally attempting to modernize their instructional practice in harmony with their belief that learning is active and that effective instruction consists of bringing about the situations in which many desirable learning activities will take place.

Common practice probably falls somewhere between the two pictures drawn above. Indications that this is true are common.

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[22] Lynd, Robert S., *and* Lynd, Helen Merrell. Middletown, A Study in Contemporary American Culture. New York, Harcourt, Brace & Co., 1929. P. 188.

[23] Rugg, Harold O., *and* Shumaker, Ann. The Child-Centered School. New York, World Book Co., 1928. Pp, 3–4.

1. Several State departments have recently issued courses or outlines for activity programs. The Alabama Course of Study for Elementary Schools (1930) lists many types of activities in each subject of study. The California Teachers Guide to Child Development (1930) describes in detail an activity program for kindergarten-primary grades. In North Carolina the State superintendent of public instruction issued a report on "activity programs, projects, research studies, etc." for 1928–29. A report of the committee on elementary education of the New York Council of Superintendents, published by the University of the State of New York (1929), includes descriptions of classroom activities selected because they "indicate the newer philosophy at work in New York's elementary schools."

2. Many schools are including activity periods or free-choice periods in their daily programs: For instance, the Alabama State Course of Study includes in the program for 6-grade 3-teacher schools a free period for self-initiated work at the opening of each school day in the first grade, and such a period once a week for the other grades. In emphasizing the need for varied programs one city superintendent writes: "These schools undertake to provide for all pupils opportunities that answer individual needs as well as group needs. In our modern school buildings attractive, homelike, and clean, an atmosphere of interest, industry, and cooperation prevails, each pupil enjoying the advantages of a school program rich in a variety of subjects and activities designed to meet individual needs and differences and to fit for the life and work of men and women." [24]

3. Among the new and outstanding books each year are a number whose viewpoint is distinctly toward the less formal and more individualized methods of classroom procedure. The "Sixty Educational Books of 1928," published in the Journal of the National Education Association for March, 1929, included 10 such publications, among which were The New Leaven, by Stanwood Cobb; The Group-Study Plan, by E. R. Maguire; and An Adventure with Children, by M. H. Lewis.

All of these things evince a steady interest in the establishment of classroom programs which shall combine with the other hours of the children's day to make for their all-round development through work and play and association with others.

PROGRESS IN CURRICULUM CONSTRUCTION

Changes within the decade.—Curriculum construction has emerged within the last decade from an individual responsibility assumed by State or city superintendents to a problem of sufficient magnitude

[24] Your Schools—Their Everyday Activities. New Britain Schools, New Britain, Conn.

to enlist the service of curriculum specialists and of State and National educational agencies, and the establishment of departments of curriculum research in cities. The initial impetus to the movement is usually credited to Bobbitt, whose book, The Curriculum, appeared in 1918. In 1920 The Elementary School Curriculum was published by Bonser, and in 1924, Curriculum Construction by Charters. Each of these writers indicates the need of principles of curriculum construction in harmony with a program or a philosophy of education.

Until the past decade few curriculum studies had appeared. Doctor Charters reported only 56 that had been published in the 10-year period prior to 1923.[25] But during this past decade literally thousands of studies appeared, dealing with the curriculum and the technique of curriculum construction.

Previous to this decade two techniques of curriculum investigation were common: Those techniques involved in the analysis of existing curriculum programs and those involved in the analysis of activities or uses which adults and children had for a given skill or item of information. The past 10 years have witnessed the development of other methods of curriculum research. A recent publication of the State Department of Public Instruction of South Dakota lists 14 approaches to curriculum construction.[26]

Certain national organizations have contributed exceptionally valuable material on phases of curriculum study during the past decade. The department of superintendence of the National Education Association has issued a series of yearbooks on the curriculum. Over 300 school systems, colleges, and universities cooperated in the national program of curriculum construction suggested in the Third Yearbook of the department of superintendence. Part I of the Third Yearbook of the department of superintendence presented a plan for a national program of cooperative curriculum construction and included a review of selected studies which the committee regarded of greatest value to superintendents of schools faced with the problem of curriculum construction. Part II raises problems in relation to differentiation of curricula to meet community needs and variations and individual differences and an analysis of research studies in the elementary-school subjects, giving the problems studied, methods of work, and findings. Three issues of the Research Bulletin of the National Education Association deal with curriculum construction in the public schools. Both volumes of the Twenty-

[25] Charters, W. W. Curriculum Construction. New York, The Macmillan Co., 1924. Pp. 113–117, 169–170.

[26] Preliminary Reports on Approaches to and Theories Regarding Curriculum Construction, General Aims and Guiding Principles of Education for the State of South Dakota. State Department of Public Instruction, Pierre, S. Dak., 1930.

sixth Yearbook of the National Society for the Study of Education cover phases of curriculum construction, Part I presenting the history of curriculum making and Part II giving the principles fundamental to curriculum construction.

Two conferences of national and international significance to the curriculum and the educational process have been held within the past year: The International Congress on Mental Hygiene, and The White House Conference on Health and Protection. The studies and reports of these conferences furnish the basis for consideration of the most vital factors in the determination of the curriculum, including the child's physical, mental, and social capacity, and the environmental factors which influence him. The reports of these conferences challenge many of the assumptions and practices of the elementary-school curriculum and the educational process.

Curriculum construction in the States.—Except in California, Delaware, and Maryland, State courses of study are published by State departments of education. The State law of California provided for a State curriculum commission in 1927, and designated that its personnel shall consist of the superintendent of public instruction and 10 additional appointive members to include at least one county superintendent, one city superintendent, one high-school principal, one elementary-school principal, one college teacher of education, and one classroom teacher. The State Department of Education of Delaware adopted the curriculum for the elementary schools of the State of Minnesota, published in 1928, and has since published an outline to supplement it. The State superintendent of Maryland contends that the " State department has no laboratory to test out a course of study. *The making of a course of study is one of the most important instruments of county supervision.*"

State officials no longer limit the entire responsibility for the construction of the curriculum to the members of their own office or assign it to a subject matter or educational specialist. Active cooperation in curriculum construction by all educational agencies in the State is gaining in practice if we may judge by programs of curriculum construction in operation in some of the States and by the personnel of the state-wide committees.

The State Department of Education of Minnesota places the responsiblity of curriculum construction primarily upon its own membership. The largest representative groups participating in curriculum construction in California are supervisors and directors of instruction and classroom teachers; in Iowa, heads of departments, directors, professors of education in universities and colleges, and city and county superintendents of schools; in North Dakota, county superintendents of schools and directors and professors of education; in South Dakota, city and county superintendents of schools, di-

rectors and professors of education, and teachers; in West Virginia, teachers in elementary grades and in one and two room schools, and principals of high schools, elementary, and 2-room rural schools.

Participation by the classroom teachers is recognized in programs of curriculum construction which include representatives of educational agencies of the State. In Louisiana all teachers were given opportunity to cooperate in the construction of courses of study. In California 62 per cent of the members of a curriculum committee of 122 persons were classroom teachers in the elementary grades; and in West Virginia 140, or 42 per cent of the 330 members of the curriculum committee, were teaching in the elementary school.

Extensive participation of teachers in the work of curriculum construction in the State of Alabama was made possible by the organization of the program of work upon certain defined basic principles. These principles are: That curriculum construction should be continuous; that many members of interested educational agencies should participate in the work; that the services of curriculum and subject matter specialists should be employed; that responsibility should be placed upon one person responsible to the State superintendent of public instruction, who would assign responsibility of special work to small committees; and that classroom teachers should participate in the selection and organization of educational materials.

These committees stated specific objectives and criteria consistent with their conception of education. The plan of organization of the curriculum may be illustrated by the section for fourth-grade arithmetic. It includes specific objectives, books and materials needed by the teacher, examples of units of work used by Alabama teachers, suggestions for methods of procedure such as testing, time allotment, difficulties peculiar to the grade, diagnostic and remedial work, arithmetic vocabulary, and desirable standards of achievement for the exceptional and average child. Likewise, in the content studies the suggested units of work indicate points of emphasis, suggested approaches, and suggested activities with desirable attainments for the average child.

Legal provisions affect the construction of courses of study in three ways: (1) By prescriptions with respect to the content of the curriculum; (2) by the requirements of State and county textbook adoption or the printing of State textbooks; and (3) by provision for State curriculum construction committees. Most of the laws enacted in relation to the subject matter of the curriculum vary in nature from general statements requiring the inclusion of a subject in the curriculum to rather specific details. The number of subjects and activities prescribed ranges from 5 in the State of Arizona to 29 in the State of Wisconsin, according to Lide and the report of

the research division of the National Education Association. According to Flanders, prescriptions totaling 926 were in force in 1923. A State curriculum commission for California and a State course of study committee for Alabama are provided by law.

State-wide adoption of textbooks is required in 26 States. The State printing of textbooks is required in the States of California and Kansas. The practice of uniform selection of textbooks throughout some States has exercised a dominant influence upon the curriculum. This influence may seriously affect the educational progress of children by limiting the source of selective material, by requiring that adopted textbooks must be used for a stated length of time, and by designating the personnel which is to make the selection of textbooks.

Certain administrative problems make it difficult for State educational agencies to provide for the varying needs of pupils in the States. Among these are the formulation of plans of organization which will meet the varying needs of children enrolled in all grades and taught by one or two teachers and the provision for children of kindergarten age and for special groups.

The organization of the curriculum which fits a graded school will not facilitate educational progress in one and two teacher schools. Yet consistent efforts to graft upon the one and two teacher schools courses of study designed on an 8-grade basis of organization have been and are to-day predominant in practice. The difficulty of using in one and two teacher schools courses of study organized for schools in which a sufficient number of pupils are enrolled to employ a teacher for each grade has been recognized by the educational officials of the States of California, Illinois, Kansas, Montana, New York, North Dakota, Vermont, Virginia, and Wyoming in the publication of separate bulletins or courses of study for the rural schools. These separate courses of study offer more extensive and complete plans for adaptations, alterations, and combination of grades and of subject matter than is provided in single publications intended for all types of schools.

Experimentation as a method of curriculum construction, which was so successfully reported by Collings, is gaining as a procedure for solving the problems of the one and two teacher schools. Experimental and demonstration schools have been established and conducted in several schools of the State of California; in Wilton, Conn.; Georgetown, Del.; the Rogers Clark Ballard Memorial School near Louisville, Ky.; the Porter School of Kirksville, Mo.; the Quaker Grove School of Warren County, N. J.; and the schools of Cuyahoga County, Ohio. In these schools the utilization of the resources of the environment, the recognition of the needs of children living on

farms, and the peculiar problems inherent in the organization of the one and two teacher schools are recognized as basic curriculum problems.

The needs of special groups are met by separate courses of study in some of the States. Children are admitted to school at 5 years of age in the States of Iowa, Maine, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New Mexico, and New York, and at 4 years in the State of Wisconsin. Curriculum content for immature and young children unable to do regular first-grade work has been provided in the courses of study in the States of California, Minnesota, Nebraska, New Hampshire, New Jersey, and Ohio. Courses of study for mentally retarded children are provided in the States of Massachusetts, New Jersey, New York, and Wisconsin. The State of Texas prepared a course of study for non-English speaking pupils in 1930. The State of Louisiana published a course of study for negro schools in 1926.

The curriculum and its problems are receiving increasing attention in the State educational surveys. Among the problems studied are length of school year, time allotment, causes of pupil failure, classification and promotion, pupil progress, and principles of curriculum construction. The California Curriculum Study is devoted entirely to the problem of the curriculum. Among other State surveys which have dealt with curriculum problems within the decade are the following:

Report of the Educational Survey Commission and Survey Staff to the Legislature, State of Florida, 1929.

Report of a Commission Appointed to Make a Study of the Entire Public Education System and Suggest Improvements, State of Mississippi [1925].

Eightieth Report of the Public Schools of the State of Missouri, June 30, 1929, Pts. I and II. Jefferson City, Mo.

Report of the Commission to Survey Public Education. Authorized by the State Legislature, New Jersey, 1928.

Rural School Survey of New York State. Ithaca, N. Y., 1922.

Texas Educational Survey Report. Course of Study and Instruction. Vol. V. Austin, Tex., 1924.

Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State. Richmond, Va., 1928.

Curriculum construction in city school systems.—There has been extensive activity in curriculum construction in cities during the past two years. Curriculum construction has been assigned as a function to a department of instructional or curriculum research in 71 cities. Of these 10 were established within the biennium 1928–1930.

The work of curriculum construction in cities has proceeded primarily along three lines of development: The study of problems fundamental to curriculum construction; the establishment of curric-

ulum centers for research and the experimental development of curriculum materials; and city-wide programs for curriculum construction on a cooperative basis.

Problems which are vital to the selection and organization of content of the curriculum are studied by the Division of Curriculum Research in Detroit, and the Division of Educational Research in Philadelphia. The Division of Curriculum Research in Detroit was established in 1928–29, "to determine by scientific methods how instruction * * * may contribute to the goals of education; what should be taught, by what method, and at what maturity level; and to what extent results are in keeping with educational objectives." The method by which the division works is indicated by the investigations made prior to the development of materials of instruction in arithmetic. They were: "(*a*) A study to obtain an inventory of arithmetical abilities; (*b*) a comparison of methods by which pupils of the fourth grade solve arithmetic problems; (*c*) an experiment to judge the difference in effectiveness between a twenty and a thirty minute class period for second-grade pupils; (*d*) a study in the second and third grades to compare the effectiveness of learning number combinations by direct and indirect methods"; and (*e*) the preparation of tests on the work of each half grade in cooperation with the Department of Research.

The developments in subject matter have been (1) the organization of a course to provide opportunities for children in the elementary school to become acquainted with nature; (2) provisions for active participation in musical programs; (3) experimental work in the organization of a free activity program in 4B social science; (4) preparation of instructional materials for specific needs, such as a story of Detroit for children in Grade 3; and (5) the development of the Children's Museum. According to the report, "practically every phase of the curriculum is reinforced by materials of the museum * * *. It is hoped to give the child opportunity for working along some line in which he is particularly interested, but which is too specialized to be included in the regular curriculum."

In Philadelphia a study was made of the problem of ability grouping. The conclusions reached according to the Report of the Division of Educational Research and Results for 1930 were that the range of achievement among the schools varies so much that no given curriculum can be assigned to a given group in all of the schools, and that a homogeneous group according to ability may not be homogeneous in all its important traits, consequently it is impossible for teachers to secure superior results by addressing instruction to the average performance of the group. "Ability grouping must, there-

fore, be looked upon, not as a means of reducing the amount and kinds of individualization, but rather as a device for increasing the effectiveness of individualization, by restricting its field of activity."

The curriculum centers in Baltimore and Cleveland will illustrate two methods of experimental work in curriculum construction.

Curriculum study centers were organized in the public schools of Baltimore: "(1) To provide an opportunity for the application of progressive principles of education; and (2) to serve as try-out centers for curriculum materials and methods." During the past year a total number of 98 teachers in 49 schools were studying problems and developing curriculum material in the primary and the intermediate grades. Among the major problems studied were differentiation of subject matter for pupils of different abilities, and the organization of activities material, visual materials, and objective tests. As units of curriculum material developed, their scope and use were analyzed as to reaction of bright, average, or dull children, and adaptations made by the teachers. The results of classroom procedures were checked in various ways. Control and experimental groups were formed to study problem solving in arithmetic. Committees of teachers and subject-matter experts checked and evaluated results obtained in history, geography, and English. In the primary grades narrative records were kept. Every curriculum unit developed was subjected to discussion and evaluated by subject-matter experts before their double try-out in classrooms.

Nine curriculum centers were organized in Cleveland in 1928. The report [27] states that the curriculum centers are a logical development of Cleveland's educational policy of research and experimentation. The system aims to reduce failure to a minimum, if not to eliminate it altogether. This is done by placing emphasis upon progress; by the elimination of formal, useless, and meaningless lessons; and by the development of educational activities best adapted to subjects or groups of related subjects. Among the problems studied are the organization of the school, ability grouping, the organization of curriculum materials and size of groups which may be handled to advantage. In relation to the question of organization the report states:

"Whether the organization of a school shall be traditional, departmental, or platoon, or some combination of the three, and whether the best method of teaching be project, Dalton, or unit, are questions still to be decided. The value of any organization or method of teaching must be measured in terms of pupil learning."

[27] The Special Schools and Curriculum Centers. Report of the Superintendent of Schools to the Board of Education, Cleveland, Ohio. 1929–30.

Curriculum construction on a city-wide committee basis may be illustrated by the programs developed in Kansas City, Mo., and Beaumont, Tex.

The initial step in the formulation of a program in Kansas City was the preparation of guiding principles as bases underlying: "(1) The nature of subject matter; (2) the selection and organization of subject matter: (3) method; (4) the evaluation of outcomes of educational experiences." The work is carried on at the three levels, elementary, junior high, and senior high schools at one time to insure continuity and proper sequence of subject matter. Outside specialists are brought in for conference as needed. The literature of research was utilized and a number of research studies made as permitted by available funds. The studies included: A list of misspelled words, a needed writing vocabulary; in arithmetic, pupil difficulties, teachers' judgments as to number experiences, and abilities mastered, and methods used in number work; questionnaire to determine children's interests in nature, and the development of tests to aid in evaluating curriculum materials. The report concludes: "The greatest good to be derived from a program of curriculum revision, however, is not to be reckoned in the number or kind of courses of study issued, but in the amount and type of teacher growth."

Steps in the development of curriculum construction in Beaumont, Tex., included the preparation of a tentative list of objectives under the Cardinal Principles of Secondary Education; and the evolution of a plan of work under direction of curriculum specialists, including a study of references, writing of subject matter to be taught in the form of a project, preparation of a draft for the course of study indicating the organization, the contents of curriculum in subject matter divisions by grades, and the criticism of the plan by an expert in curriculum construction.

Recent developments.—Among the recent developments in the new courses of study certain ones are of especial interest. The courses for the States of Alabama and California organize all content around the experiences of children. The following quotation from the Teachers' Guide to Child Development[28] explains the points of departure in curriculum construction in California:

> When [the curriculum] committees attempted to set up objectives and determine principles for the proposed course they were forced to the conclusion that they could no longer support the teaching of reading as an isolated subject based upon a separate course of study. * * * This group of representative educators concluded that there was urgent need for a comprehensive consideration of the entire work of the primary grades, and for concrete interpretation which should clarify for teachers generally the educational philosophy and the actual operation of a school program based upon rich and

[28] Office of Education Bulletin, 1930, No. 26. Pp. XIII–XIV.

carefully guided experiences, as contrasted with that based upon the more traditional, logical, formal organization of school subjects.

The course of study for the elementary schools of Alabama [29] is organized in the light of educational principles relating to the individual and to society formulated by the curriculum committees. The basic principle applied to the organization of the curriculum reads:

> These social objectives must be accomplished through individual members of society. Therefore, the nature of the individual requires consideration. The general point of view growing out of the principles relating to the individual is that, since experience is the basis of learning, the objectives of the school can be best achieved through purposeful child activities. Thus the child is recognized as an active agent in the educative process. In line with the point of view just stated attempts were made to develop many units of work based upon child experiences rather than logically organized subject matter.

The findings of research are contributing to the determination of curriculum content. Illustrations may be selected from the field of English. The State course of study in English for Iowa is based upon studies of common errors and an analysis of life situations. The course of study for Dallas, Tex., is based upon surveys of social usage among children. Other innovations in English are the integration of the related subjects of reading, spelling, and English into a single course, the functional use of English in the exchange and record of experiences in courses of study organized on an activity basis, the publication of courses for non-English speaking groups in Austin, Tex., and a course for slow-learning groups in English in Denver.

Curricula in music are beginning to provide opportunities in which increasing numbers of children may participate in school bands, orchestras, and festivals and may listen to national radio programs designed for children.

Techniques of procedure in curriculum construction have developed along three lines: (1) Administrative, (2) experimental, and (3) investigative. By administrative is meant the procedures developed for determining the policies for programs of curriculum construction and the development of principles for organizing the educational agencies of a school system into a working unit, and for the coordination and integration of the work of different groups. The programs developed in Denver, Cleveland, St. Louis, Baltimore, and other cities, and the studies of Cocking, Harap, Holloway, and Hopkins, are illustrative. Techniques of procedure for the experimental development of curriculum materials are being developed in those

[29] Course of Study for Elementary Schools Authorized by the State Board of Education, Montgomery, Ala., 1930. P. 23.

schools which depart from courses of study in current use and in the light of an educational philosophy attempt to develop a curriculum consistent with that philosophy. Such procedures can be illustrated from the reports of curriculum in the laboratory schools of the Lincoln School, the Ethical Culture School, the elementary schools of the University of Iowa and Southern California, and in the public-school systems of Rochester, N. Y., Long Beach, Calif., Raleigh, N. C., and experimental schools of the State of California, the Demonstration School of Georgetown, Del., and others. The third, or investigative technique, is also characterized by its departure from the traditional and seeks by an analysis of a wide range of sources to determine goals and objectives, or by investigations of social problems to determine the basic goals and the curriculum content essential to their realization. Examples of these types of integration are the studies by Curtis and Craig in Science; The Technique of Curriculum Making, by Harap; and the studies by Rugg of the crucial problems of contemporary life based upon the writings of frontier thinkers.

Curriculum activities of national educational organizations.—The committee of the National Council for the Social Studies has committees working on the investigation of social studies. According to the report, "the commission is feeling its way to the point where it can lay hands on certain necessary fundamental major problems."[30] Two subcommittees deal with curriculum problems, one on objectives and another on content and study method.

The National Council of Teachers of English is conducting a nation-wide study of the English curriculum looking toward the construction of a recommended course of study in English. One of its major studies is upon the problem of the correlation of English with other subjects of instruction. The place of English will be studied in relation to the organization of the curriculum as a whole, in its larger subdivision such as the use of the auditorium, recreation, etc. Other problems relate to the place of English in relation to single subjects, groups of subjects, and to isolated projects or activities. The whole field of subject matter will be surveyed for possibilities of correlating the work of English with other subjects for the enrichment of the entire curriculum.

TEXTBOOKS AND OTHER INSTRUCTIONAL MATERIALS

Textbooks have always played an important part in American education. With the increase in the number of subjects to be included

[30] In Historical Outlook, Vol. XXII, No. 2, February, 1931, p. 64.

in the curriculum, in amounts of subject matter considered of real social worth to pupils, and in numbers of pupils for whom individual teachers are responsible, textbooks have become more and more responsible for carrying such instructional responsibilities as developing or stating the problems for study, calling attention (by marginal or topical headings) to important points, supplying tests or measures of understanding or ability to explain or apply, suggesting how to study, memorize, or practice the unit of work outlined. So generally have textbooks included such phases of instruction and so generally have they dictated both study and class periods that the statement is common that the textbook dominates American education.

It is therefore highly important that textbooks shall embody the best we know both in the selection and organization of content and also in the principles of learning exemplified in the study exercises and directions to the student. With a view to showing the extent to which the elementary school textbooks in certain fields are conforming to present-day educational principles, changes in elementary school textbooks are summarized from various sources in the following paragraphs:

Reading textbooks.—In an analysis of the change in content of schoolreaders over a period of two centuries.[31] Doctor Robinson shows that readers in current use are the product of two important influences: First, that of many studies to determine what children at different ages like to read, and second, that of changed objectives in reading which have emphasized the development of many interests, habits, attitudes, and skills as opposed to the former religious-moral-civic aim of readers. An analysis of more than 212 readers in use in 1926 showed that the following types of content occur in relatively large amounts: Selections concerning animals and birds, boys and girls, fairy stories and fables, adventure, nature study, and folklore; there seems to be a tendency toward increases in materials pertaining to thrift, geography, biography, and history, which is in line with progressive recommendations for the inclusion of worth-while informational content in readers.

A recent study of basal reading texts[32] furnishes the score cards with which the committee representing the elementary schools of Rochester attempted to evaluate and select basal literary readers and study readers from a collection of more than 50 series. The

[31] Robinson, R. R. Two Centuries of Change in the Content of School Readers. George Peabody College for Teachers, Nashville, Tenn., 1930.

[32] Simpson, Mabel E. An Analytical Study of Basal Reading Texts for the Elementary School. Journal of Educational Method, 7: 400–411, June, 1928.

following points selected from the two score cards show how the two types of books are expected to differ:

SCORE CARD I	SCORE CARD II
Material of a literary type	*Material of a study type*
I.6. Relative proportion of stories, poems, and dramatic material.	I.1. Type of content: Informational—study—test material.
I.4. Does the arrangement provide for consistent growth by placing the less difficult stories at the beginning of the book?	I.4. Does the arrangement allow for consistent growth through the provision made for the development of specific study habits?
II.4. Is there a definite plan which aims to arouse the desire to read stories of a similar type or other stories by the same author?	I.6. Do frequent checks and tests make it possible for the reader to determine his own achievement?

Language textbooks.—A study made by Dr. Elizabeth Baker of the language textbooks published since 1843 [33] reports that—

The child of to-day has more variety in the kind of English exercises than has any child that went before; he has less grammar to learn; he has less writing to do; he has more training in oral use of the language; he has less to say about objects; he has less memorizing to do than any child since the eighties; he writes and talks less about pictures than any child since the nineteen hundreds; he gets more training for the situations of life than any child ever got before.

A similar study made of 24 language-composition textbooks for the seventh and eighth grades, all published since 1920, furnishes this summary [34]:

In general, they are still overstressing grammar but are attempting to teach that subject from the functional point of view. Some texts which reduce grammar to sensible proportions find thereby increased opportunity to create expressional situations calling for natural writing and speaking from boys and girls. Moreover, such expressional situations are in a respectable number of cases tied up with the activities of school and home life, with the duties of junior citizens, with the pleasures and recreations of adolescents. Vocational outlooks, at present entirely neglected in these texts, represent a regrettable oversight. Oral composition is not as yet receiving the amount of attention it deserves in view of the fact that language, both in school and out, is used orally as compared with writing in the ratio of 100 to 1. The presence of study helps indicates that modern textbooks are making language, as it should be, a "laboratory" or "shop" subject, utilizing the social nature of communication to secure and maintain interest and to establish a language conscience. Nevertheless, it is to be regretted that only one of 24 books makes a respectable effort to compel that language conscience to carry over into the language experiences of subjects other than English.

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[33] Baker, Elizabeth Whitemore. The Development of Elementary English Language Textbooks in the United States. George Peabody College for Teachers, Nashville, Tenn., 1929.

[34] Lyman, R. L. A Study of Twenty-Four Recent Seventh and Eighth Grade Language Texts. Elementary School Journal, 24: 440–452, February, 1924.

Of particular interest is the evidence that present-day language texts are cooperating in the movement to base language instruction on the social situations which demand language use, rather than on the academic classification of language forms.

Geography textbooks.—Fundamental changes in geography textbooks indicate important developments both in the content and in the method of geography study. Zoe A. Thralls, of the University of Pittsburgh, submits the following analysis of present-day geography texts:

Since 1925 there has been a decided shift from the 2-cycle plan in geography to the one cycle. All but one geography textbook series published since 1925 are on the 1-cycle plan. As a result the amount and type of subject matter for each region has changed. An increase in number of pages usually means increased detail in treatment, which implies more interesting material.

The subject matter is selected to show the interrelations between man's activities and the natural environment. This has resulted in a greater emphasis upon man and his activities, also upon cause and effect rather than locational and factual material. The methods of organization and presentation have also changed. In the former texts the topical outline—surface, drainage, climate, area, population, and industries—was usually followed in the discussion of every continent and country. In many of the modern texts the organization is in the form of stories telling of the life and activities of a family in a specific region, as Switzerland. Through the story, the conditions under which the people live are developed in relation to the family's activities. In other instances the organization is varied but always beginning with the activities and interests of man and leading on to the factors of the natural environment which explain or affect the activities.

In recent texts the findings of research have been utilized. The vocabulary is graded in difficulty, and the ideas are presented in order of estimated difficulty. Facts are chosen with the idea of developing and illustrating principles; later the child is given the opportunity to apply principles already mastered.

The new texts give a great variety of study and checking exercises. They also make provision for a variety of drill work.

The type of pictures has changed. Where formerly at least three of five pictures were of interiors of factories, monuments, city streets, and public buildings, in the new texts four of five are now of natural scenes, and scenes showing man's activities in their natural setting. The pictures are larger, giving more detail. Furthermore, the pictures are now an integral part of the textual material, while formerly they were usually not even referred to in the text.

Hygiene and physiology textbooks.—What help American children are receiving from their textbooks in learning how to keep physically fit is summarized by Dr. James F. Rogers, senior specialist in health education, Office of Education, as follows:

1. The textbooks of 1920–30 are more interesting to the adult (and presumably to the child) than in previous years.

2. Textbooks a few years ago were intended only for pupils of high-school age, but attempts are now made to furnish books suitable for all ages, and the

efforts seem successful. There has been some reaction, however, from the fairy-tale method of presenting hygiene to elementary pupils.

3. As regards content, there is little that is new relative to the structure and function of the body. The laws of personal hygiene have been known for ages, and the field of public health and human relationships as affecting health is that in which most additions are being made.

4. In the selection of matter there is comparatively less of anatomical detail than was the case some years back. Nevertheless the principal bones are still "named," as they deserve to be.

5. All recent books are characterized by an effort not merely to furnish facts but to arouse a health conscience in the child and to secure his practice of the information offered.

6. Not only is the text more human, but the illustrations are more numerous and attractive than formerly.

Spelling textbooks.—Authors and lecturers on methods of educational research have long illustrated their principles by reference to the field of spelling, since the problems of selection, grade placement, and organization of subject matter and the problems of method have in that field been so definitely defined. An analysis of the scientific techniques which the authors of 10 spelling textbooks claimed to have used yields the following summary points:[35] Most word lists have been checked against two sources—words written by adults and words written by children. The grade placement of words has usually been decided on the basis of difficulty and initial or frequency of usage. There seems to be no general agreement as to the amount of repetition needed for drill or the desirability of grouping words on some basis of similarity, but there is a definite tendency to limit the word lists to 3,000 or 4,000 words. Most authors advocate the test-study method but rarely refer to remedial teaching of spelling. Referring to the lack of instructional material in textbooks, the authors say: "It appears to be difficult for authors to write spelling books that will really teach, that will be something more than mere word lists."

Dr. Ernest Horn summarizes three recent trends in spelling textbooks:

> I think that there are trends in the last few years, first, to recognize clearly the point of view of social utility in selecting the word lists; second, to demand that the words taught in a given grade are related to the writing needs of the children in that grade, at least for grades one to six; and third, a desire to find some principle by which one can escape from the necessity of teaching each and every word which the child needs to spell. This involves some principle of rationalization.

Civic attitudes in textbooks.—In a recent study of about 400 American school textbooks,[36] an attempt was made to discover what civic

[35] Schorling, Raleigh, and Edmonson, J. B. The Techniques of Textbook Authors. Thirtieth Yearbook, Part II, National Society for the Study of Education, Ch. III.

[36] Pierce, Bessie L. Civic Attitudes in American School Textbooks. The University of Chicago Press, 1930.

attitudes pupils in American schools are apt to develop. Ninety-seven histories, 67 books in civic, sociological, and economic problems, 45 geographies, 109 readers, 50 music books, besides foreign-language texts were examined in order to find out, as Doctor Pierce says, "from a study of textbooks frequently found in the schools, what opinions can American boys and girls of the present form concerning their own country and of other countries." She concluded that American children are taught through their textbooks to respect American patriots and their contributions to the Nation, and American characteristics and activities. They are, however, through histories and readers encouraged to see in the people of other nations certain racial or national characteristics and activities which do not always redound to their credit. Geographies include considerably less material which may lead toward civic education than to the other textbooks, but when they do include material other than physical geography it is apt to be such as is conducive to an understanding and tolerance of the people of other lands. Civics and citizenship books commonly emphasize the rights, privileges, and duties of citizenship.

In view of the important place textbooks play in developing the thought patterns of thousands of students, Doctor Pierce's concluding statements are arresting: "'The chief part of man's life is remembering,' said James Harvey Robinson. What do the American people wish their children to remember?"

Other instructional materials.—Among other instructional materials which play an important part in determining classroom procedure two may be selected for special mention: Children's books for recreational reading, and work-books and practice materials.

Nowhere in the world are children provided with so varied, so attractive, and so plentiful recreational reading materials as in this country. Classrooms and libraries testify to the use schools are making of them.

Anne T. Eaton, librarian at Lincoln School of Teachers College, and an authority on children's books, makes the following summary of trends in children's books in the last 10 years:

1. A greater number of books of actual merit are published. There may be nothing to supersede or even equal some of the outstanding books of the past but there are a larger number of good books.

2. More attention is paid to illustration and format.

3. There is an increased number of artistic picture books for children, especially of picture books with a single simple story.

4. There is a constantly increasing number of books which try to explain the things that a child sees and comes in contact with in his daily life—for example: Bruère: Sparky for Short (A fairy tale that explains the principles of electricity); Jones: How the Derrick Works; Gimmage: Picture Book of

Ships; Jones: An Alphabet of Aviation; and Van Metre: Trains, Tracks, and Travel.

5. More books are written about foreign countries by people who know the countries so well they can give to children not only correct facts but atmosphere and sympathetic understanding, for example: Wells, Rhea: Beppo the Donkey (Sicily), Peppi the Duck (Austrian Tirol); Coatsworth, E.: The Boy with the Parrot (Guatemala); and Brann, Esther: Lupe Goes to School (Spain).

There has been an amazing activity among authors and publishers in the last few years in the production of work books. Through them authors seem to have accepted, in addition to the task of supplying the content, the responsibility of supplying instructional material for "setting the problem," directing the study, providing varied activities (such as drawing, constructing, coloring, matching, illustrating, graphing, outlining, arithmetic drill), and testing the results of individual study. More than 60 such work books in reading and arithmetic by 14 different publishing companies are listed in the recent Teacher's Guide to Child Development of the California State Department of Education, and work books in geography and history are also available. The definiteness and usefulness of these materials commend them to the busy teacher, but if we consider a child's day as made up of a transition from one work book to another it appears that they may not be altogether an unmixed good.

It is worth while noting that the newer instructional materials in content subjects are coming to be less and less "textbooks," in the old meaning of the term, and are instead extended well-written accounts of a major topic or problem. This is in line with the recommendations of progressive courses of study for the use of large units or blocks of subject matter. And likewise following out progressive recommendations for increased facilities for the individualization of instruction, texts in the skill subjects are more and more providing the instructions and self-checking lessons which make individual progress through a given course possible.

III. PROGRESS OF PUPILS

SUCCESS AND FAILURE

From reports on pupil progress issued by city and State school systems within the past two years it can be seen that certain specific factors influencing pupil progress are being studied. Among these are school entrance regulations, grade placement and classification of pupils, school attendance, and the adjustment of curricula to individual needs. Other influencing factors that need further study are systems of pupil accounting and the relation of the number of pupils enrolled in a class to their success in meeting grade requirements, definitions of "promotion" and the possibilities of flexible promotion programs, the cooperative work possible between be-

havior or mental hygiene clinics or institutes, and the remedying of school progress difficulties in the elementary school.

"Normal progress" has the generally accepted meaning of alloting one year of school life to each grade. Because of the different ages at which children enter school an age range of one and one-half or two years is generally accepted for each grade. This is a desirable definition for purposes of local and national comparison. It is well to recognize, however, that different interpretations may be made for individual cases as to what constitutes normal progress. For one child from an impoverished home, or one in which a foreign language is spoken, normal progress may mean spending two years on the task of meeting first-grade reading requirements and making adequate social adjustments. For another child from a home where these handicaps do not exist normal progress may mean spending but half a year on the work of the first grade.

Age-grade distribution.—The following distribution of 116,651 boys and girls among grades of the elementary school according to their chronological ages shows the number who are in each grade at the age expected and the number of those younger and older for their grades.

This age-grade distribution is assembled from reports of 1 typical school building in each of 56 school systems in cities of different population sizes and representing all parts of the United States.

TABLE 5.—*Summary of age-grade distribution of 116,651 white pupils in elementary grades of 56 cities*[1]

Grades	Enrollment	Average age in years	Age range in years	Percentage distribution		
				Under age	Normal age	Over age
1	19,445	6	4–17	25.7	68.6	5.7
2	17,071	7.21	5–16	21.4	69.5	9.1
3	16,334	8.39	5–16	17.7	70.5	11.8
4	15,743	9.43	7–17	17.6	67.0	15.4
5	14,882	10.54	8–18	16.7	64.1	19.2
6	14,618	11.54	8–19	17.2	62.7	20.1
7	10,707	12.44	9–18	18.6	65.2	16.2
8	7,851	13.30	10–19	21.8	65.3	12.9
Total	116,651			19.7	66.9	13.4

[1] From an unpublished study in the Office of Education of acceleration and retardation in elementary grades. Cities reporting data represent all population sizes and all parts of the United States. Ages were taken as of September 1 and 2 years are allowed for each grade's normal age group beginning with 6 and 7 years for grade 1.

A summary of age-grade distributions for 7,623 children enrolled in 45 consolidated [37] schools shows a marked similarity to those in the preceding table for city schools.

[37] An Age-Grade Study of 7,632 Elementary Pupils in 45 Consolidated Schools. D. T. Blose. Office of Education, Pamphlet No. 8, June, 1930.

TABLE 6.—*Age-grade distribution in city and in consolidated schools*

Number of children	Percentage distribution of enrollment		
	Under age	Normal age	Over age
Data for 116,651 children in 56 city school systems	19.7	66.9	13.4
Data for 7,632 children in 45 consolidated schools	21.3	63.5	15.2

In comparing overageness for schools in city and in rural districts, it should be remembered that pupils enrolled in special classes provided by city school systems are seldom included in the general elementary age-grade distribution. Few, if any, rural districts are able to provide for special classes and records for pupils eligible for them are necessarily thrown in with those for normal children.

The figures given above offer a basis for comparison with local situations. Probable variations are indicated by reports of enrollments from the State of Pennsylvania of a 29 per cent overage for grade for the year 1929–30, and from a study made in San Francisco for 1929 which gives 11.1 per cent underage, 58.5 per cent normal age, and 30.4 per cent overage. A possible cause for the wide variations among these reports is the date from which ages are reckoned, e. g., reckoning a pupil's age as from his nearest or from his last birthday.

The wide range of ages within a grade may be partially explained by a lack of special classes for late school entrants and for handicapped children, by a lack of kindergarten opportunity for children below 6 years of age, or of adequate provisions for classification of school entrants according to ability and past experience.

The greatest number of children underage for grade are in the first grades and the load of pupils overage for grade reaches its highest point in the intermediate grades. This is generally apparent in age-grade distributions and is the natural result of the high rate of pupil retention in the primary grades. From grade 5 or 6 the proportion of overage pupils diminishes until in the high school there is a larger number of underage pupils. The change is probably due to the gradual elimination of overage pupils, pupils who go to work or who leave school due to a sense of inability to succeed.

Reduction of retardation.—Progress in the reduction of retardation is reported from several State and city school systems. For Maryland "the percentage reported as overage appears to be from 1 to 3 per cent lower in 1929 than in 1927 in all of the high-school years and in all elementary grades, except first and second, in which grades the per cent overage appears to have increased slightly." [38]

[38] Overage Pupils in Maryland County White Schools. Maryland School Bulletin, State Department of Education, Baltimore, Md., Vol. XI, No. 6, June, 1930.

Efforts have been made to reduce the number of first-grade failures, but poor attendance, late entrance, lack of understanding by parents of the value of each day's experience in the first grade are factors that have yet to be conquered.

Progress in promotions and holding power of the elementary schools of San Francisco analyzed for the years 1915, 1927, and 1929 is reported in the annual report of the public schools of the city and county of San Francisco for the year 1929 as follows:

A comparison of the enrollment by grades in 1915 with 1927 and 1929 shows a very great increase in the holding power of the schools and an equally great improvement in the progress of pupils through the grades. A decided trend which favors the years 1927 and 1929 is evident. In other words, our public schools to-day have more effective instruction, less retardation, and the schools themselves are more attractive to the children of all age groups than they have been in the past.

The following comparisons, chosen from many which could be made, support the above statements, show the children to be moving steadily through the grades with but little lost motion. The clustering and massing in grades 1, 2, and 3, so common in the past, is very greatly reduced and the number continuing on beyond the sixth and eighth grades for more schooling is much greater than formerly.

In grades 1 to 8 in 1915 there were 495 children out of each 1,000 in the first three grades. In 1927 in the same grades there were 390 out of each 1,000 in the first three grades, and in 1929 there were 404 out of each 1,000 in the first three grades.

In 1915 the number of pupils in the eighth grade was 35.5 per cent of the number in the first grade. In 1927 the number in the eighth grade was 90.9 per cent of the number in the first grade. In 1929 the number in the eighth grade was 81.8 per cent of the number in the first grade.

Continued progress in reducing the extent of overageness and in increasing the proportions of pupils who are normal and underage for grade is given in a report from Philadelphia.[39] This report shows that—

there were 29 per cent of pupils who were overage for grade. This is 3.4 points lower than the per cent of overageness for 1927. The 1927 overage per cent was 3.5 points lower than that for 1925. Thus we have indication of a constant tendency throughout the system to reduce the proportions of overage pupils. Compensating this general decrease in the proportions of pupils overage, there is recorded a consistent increase in the proportions of pupils of normal age and underage. In each biennium, from 1925 to 1927, and from 1927 to 1929, the proportion of underageness has increased by approximately 20 per cent, and the proportion of overageness has decreased 10 per cent.

FACTORS INFLUENCING PROGRESS

Entrance ages.—The large proportion of underage pupils in the first grade suggests possible slow future progress. According to

[39] Age-Grade Survey. Board of Public Education, Division of Educational Research, Philadelphia, Pa. Bulletin No. 146, February, 1930.

Doctor Cooper's study[40] children entering rural schools under 6 years of age make slower progress than do any other entering age group. "Seven out of every ten spent the first two years in grade 1, and only two out of every ten were able to complete the eight grades of school work in the 8-year period." On the other hand, it has been proved, in one instance at least, that if chronologically underage children are admitted to school on the basis of mental age that they are not only able to maintain their scholastic accomplishment on equal terms with their classmates but are decidedly superior in some phases of the work.[41]

A large number of 5-year-old children are reported as enrolled in the first grades of many States. The proportion of 5-year-old children living in rural districts enrolled in first grades and kindergartens is shown by data for 3,177 5-year-old children living in 22 counties.[42] Of this total number of 5-year-old children, 78 per cent were enrolled in school and 33.1 per cent of these were attending kindergartens while the remaining 66.9 per cent were enrolled in first grades.

A comparison of the extent to which kindergarten opportunity is offered in rural and city school systems is indicated by a percentage distribution of enrollments in kindergarten and the first three grades for approximately 3,000,000 children in 3,000 city school systems[43] and for 21,000 children enrolled in the rural schools of 22 counties in 5 States.

TABLE 7.—*Percentage distribution of enrollments for the unit of kindergarten-primary grades*

Kindergarten and grades	City schools	Rural schools
Kindergarten	15.7	5.46
Grade I	33.0	38.43
Grade II	26.5	27.14
Grade III	24.8	28.97

Graded and ungraded schools.—The problem is intensified in the 1, 2, and 3 teacher schools. Fifty per cent of all nonprogress in the 1-teacher schools is found in grade 1 while only 35 per cent is found in grade 1 of the graded school. It is evident that young

[40] Progress and Attendance of Rural School Children. Hermann Cooper. Teachers College Contributions to Education No. 442. New York, Teachers College, Columbia University, 1930.

[41] The Later Performance of Underage Children Admitted to School on the Basis of Mental Age. Edward A. Lincoln. Journal of Educational Research, 19: 1–22–30, January, 1929.

[42] Availability of Public-School Education in Rural Schools. W. H. Gaumnitz. Office of Education, Bulletin, 1930, No. 34.

[43] Kindergarten-Primary Education. A Statistical and Graphic Study. Mary Dabney Davis. Office of Education, Bulletin, 1930, No. 30.

children need time and attention from the teacher to get an adequate start in school and to avoid developing habits of mental inertia or bad habits in the use of time. Teachers who are responsible for children's progress in all the elementary grades apparently are not free to give enough time to the youngest children.

Differences are reported from Maryland in the progress made by boys and girls and in the progress made in one or two teacher schools as compared with that in graded schools. The number and per cent of boys and girls who are overage in each grade shows the disadvantage boys suffer in accomplishing the work planned for the elementary school. The ungraded school places children at a disadvantage in relation to their progress. The following table from a study made in the State of Maryland [44] gives a summary of the difficulties faced in that State.

TABLE 8.—*Per cent of Maryland county white pupils overage, November, 1929*

	1-teacher schools	2-teacher schools	Graded schools
Boys	23.6	20.8	17
Girls	16.4	13.7	10.7

Pupil classification.—Several administrative devices have been developed in attempts to reduce retardation. Their purpose is to care for the child overage for grade, the child temporarily handicapped by absence or illness, the child with ability to progress more rapidly than others, and other cases of maladjustment. Among these devices are homogeneous or ability grouping of pupils in "slow, normal, and fast" or "X Y Z" programs; the organization of preprimary classes for children chronologically elegible but mentally unready for first-grade work; the provision of coaching teachers working with small groups of children needing special attention; and the adjustment of a flexible program for promotions.

Within the past two years there have been many arguments for and against the use of these several plans with but little scientific experimentation to produce conclusive evidence. Of those studies which have been made, some seem to favor homogeneous grouping and others emphasize the large number of factors qualifying the success of such grouping.[45] Arguments advanced in favor of homogeneous grouping and others against this type of organization have been clearly outlined and discussed in an article by Doctor Mc-

[44] Overage Pupils in Maryland County White Schools. November, 1929. Maryland School Bulletin, Vol. XI, No. 6. State Department of Education, Baltimore, Md.

[45] Bibliography of Research Studies in Education, 1928–29. U. S. Office of Education, Bulletin, 1930, No. 23.

Gaughy,[46] in which he brings out the strength and weakness in both sides of the argument.

Preprimary classes have been organized in a number of city school systems to care for children 6 years old chronologically but not 6 years old mentally. For Seattle the work is described as placing special emphasis upon work which will develop the children and build up a condition of readiness for first-grade work. In some places the second-year kindergarten curriculum is designed to meet the same needs as those described above. An instance of this is reported from Mount Vernon, N. Y., where an effort is made to avoid admitting children to first grade without a mental age of 6 and to make necessary adjustments through the 2-year kindergarten program. Additional emphasis upon the problem faced in the first grade has been made by Carlton E. Douglas, assistant superintendent of the Baltimore schools:

> Of first importance is the common requirement that pupils 6 years of age chronologically must be admitted to regular first-grade work. Yet at least 50 per cent of failing first-grade pupils fail because they are not mentally mature enough to make the pursuit of reading profitable. Rarely have school systems of the country had the courage and the legal authority to meet this situation squarely. The very natural result is that there is the highest percentage of failure in the first grade, a rate of nonpromotion quite out of keeping with that in later grades.[47]

Standards for promotion.—As would be expected variations exist throughout the country as to standards for promotion. These variations are both according to individual grade requirements and in keeping with the general educational philosophy underlying the whole program of a school system. In general, school admission on a chronological basis moves to a mental achievement basis for promotion within one year. Major weight is given to scholarship and minor weight to the development of personal, social, and intellectual habits. Promotion schedules which elementary schools follow are reported for a National Education Association study by 225 cities as semiannual and as annual for 300 cities. The most significant change anticipated by the administrative officers of these school systems is for a flexible program allowing promotion at any time during the year. Five city-school systems report that they anticipate accepting this program. The desirability of trial promotions has been advocated by many school superintendents. Facts showing that three-fourths of the children so promoted retain their place in the advanced grade are given in the study by Doctor Buckingham.[48] A definite

[46] Homogeneous Grouping of Pupils. J. R. McGaughy. Childhood Education, Vol. VI, No. 7, March, 1930, pp. 291–296.

[47] Baltimore Bulletin of Education, VIII: 7, April, 1930.

[48] Administration of Pupil Personnel. Arch. O. Heck. New York, Ginn & Co., 1929. p. 372.

advantage accrues from such a program in stimulus to effort for both the receiving teacher and for the child promoted on trial.

School attendance.—Daily attendance, another factor in pupil progress, seems to be more of a problem in rural schools than in city schools. For all elementary grades of city schools the average daily attendance is 83 per cent against 78 per cent for rural schools.[49] The greatest problem of attendance occurs in the kindergartens and first grades where health, transportation facilities, and the parents' attitude toward necessary regularity of school attendance at this early age are important factors. Doctor Cooper's study of the causes for slow progress in school reports that some form of nonattendance accounts for 95 per cent of the reasons given by teachers for retaining pupils a second year in the first grade.

Definite help for first-grade attendance is being given through the work with parents in the preschool clinics that are being established in State and city departments of education.

In the State of Pennsylvania "preschool clinics are becoming an integral part of the school nursing program. At these clinics the children who will enter school the following fall are given a complete health examination and an effort is made to have remedial handicaps corrected or treated as early as possible. From an economic as well as a humanitarian standpoint, correction of remediable handicaps should be made before a child begins school life. This would mean a saving of time, money, and worry for all and would help to limit the number who have to repeat the first grade because of absence due to illness or other physical handicaps."[50]

A "Beginner's day" program instituted in the State of North Carolina is accomplishing a similar purpose, particularly with the children in rural districts. Somewhat similar help is given school attendance, and, indirectly, to a reduction of retardation, through the visiting teachers' work. These workers are responsible for getting the children into the school, for arousing interest and enthusiasm among teachers, pupils, and parents in keeping children in school, and for carrying out attendance campaigns.

One visiting teacher in the State of Delaware (1927–28) made personal contacts with the parents of more than 300 children before school opened to insure a prompt beginning of the school year. "The visiting teacher acts as a friend and advisor rather than as an officer to enforce law, taking the attitude always that an understanding of home conditions and environment interpreted to the teacher and the point of view of the teacher interpreted to the home

[49] Some Comparative Statistics of Public-School Education in Urban and Rural Communities. W. H. Gaumnitz. Office of Education. Rural School Circular No. 27.

[50] Report of the Superintendent of Public Instruction of the Commonwealth of Pennsylvania for the Two-Year Period Ending May 31, 1930.

makes for better understanding and cooperation on the part of both."

Among the duties reported for the school visitor of a city school [51] system are the following: Compiling school census, making home and school visits, holding office conferences, tracing and completing working permits, referring cases for psychiatric study, and for juvenile court adjustment, and tracing pupils transferred or lost through changes in residence. By far the most frequent problem handled is that of attendance. It is interesting to note the variety of cooperating agencies which assisted the home visitor in her work. These included: The Cleveland Foundation, Child Guidance Clinic, probate court, juvenile court, Mount Sinai Hospital, Jewish Social Service Bureau, Associated Charities, Catholic Charities, Women's Protective Association, Cleveland Heights police, Cleveland Board of Education, East Cleveland Board of Education, Fairmount Presbyterian Church (men's club).

This type of home visitation and home cooperation is being carried on in many city-school systems under the department of child accounting. In others a special guidance program is followed.

Specific aids for pupil progress.—Irregular attendance was found by Doctor Cooper to be a major cause for retention in the lower grades. In upper elementary grades retention was attributed largely to some form of lack of development. This idea of inadequate development as a cause for retardation is also emphasized in a study by Doctor Percival.[52] According to teacher judgment, the most frequent cause of failure in all grades is the pupil's slow-learning ability and the second cause for failure is the pupil's lack of application and attention. Both of these causes cast a reflection upon the amount of work required and the difficulty of the work prescribed in the course of study. It also suggests that the course of study or the method of teaching employed by the teacher fails to arouse the interest of pupils to make adequate effort to achieve the standards outlined. Included in many supervisory programs are plans to help correct this difficulty. The advanced program for 1930–31 of the Baltimore public schools proposes curriculum study groups; continuous curriculum revision with special reference to the differentiation of courses in order to meet the needs of slow, average, and rapid moving groups; evaluation by the teachers of the city of certain proposed standards of promotion; and expansion of the guidance instituted in the elementary schools the preceding year.

An aid for pupil progress has been offered during the past two years through experimentation with reading clinics. These function

[51] Annual Report of the Cleveland Heights Schools 1929–30.

[52] A Study of the Causes and Subjects of School Failure. Walter Pilling Percival. Berkeley, Calif., 1926. 55 pp.

as means of discovering causes for reading disabilities and of remedying them. The clinic at Western Reserve University diagnoses the possible causes of a pupil's reading difficulties from such angles as the oculist's report, the psychiatrist's examination, and a social worker's study of the child's home environment and prescribes individual treatment. Satisfaction with the results of the remedial program in individual cases has been expressed by teachers doing the "follow-up" work.[53]

During the past year a scale has been developed for the study of behavior problems and problem tendencies in elementary school children.[54] Many cautions are given to those using the scale to avoid blanket or general conclusions being drawn from scores attained by the test. The scale is a means of bringing to the teacher's consciousness certain specific behavior reactions for individual pupils. In this respect it is especially helpful. Furthermore, the manual accompanying the scale emphasizes the need for more than one estimate of pupil behavior, and for estimates taken under different situations.

Another type of attempt to assure normal school progress through understanding individual pupil behavior is the use of child guidance or behavior clinics. Montclair reports in 1928 as follows:

> The child guidance department rendered invaluable aid in testing and classifying pupils. The department did a large part of the work in developing the diagnostic card now in use in the elementary grade. * * * All kindergartners were given an individual mental test and the results were used in promoting these pupils. It is interesting that we have practically eliminated failures in the first grade as a result of this service.

A visiting child guidance clinic in California gives the local school system an opportunity to test the value of the service rendered. Fresno, Calif., reports the result of a visit from workers of the California Bureau of Juvenile Research as follows:

> Ten children were studied intensively during the week. Members of the school department aided in the work by selecting cases to be studied, preparing case histories, getting physical examinations, and furnishing other information for use of the clinic. Two staff meetings, open to those interested in the work, were held. At each meeting a case was discussed in detail by the visitors. After the conclusion of the work in Fresno complete reports of each case, together with detailed suggestions for treatment, were sent to the school department. With the aid of principals, counselors, teachers, and nurses an effort was made to put into effect the recommendations of the clinic.

The need of relating home environment and behavior to learning ability and school achievement has been recognized in Garret County, Md. The following outline for individual case studies of pupils reported as "failures" is being used by teachers especially interested in the problem:

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[53] Annual Report of the Cleveland Heights schools, 1929–30, p. 15.

[54] Haggerty—Olson—Wickman. Behavior Rating Schedules. World Book Co., New York, 1930.

A SUGGESTIVE OUTLINE FOR A CASE STUDY

I. Name, age, date and place of birth of child.
II. Story of physical condition of child.
  A. Height and weight (normal and actual).
  B. Condition of eyes, ears, teeth, etc.
III. Story of home and environmental conditions.
  A. Economic condition—father's occupation.
  B. Number in family—ages of other children in family.
  C. Community activities of the family.
  D. Child's eating and sleeping habits.
  E. Child's duties at home.
  F. Child's out-of-school associates besides his family.
IV. Educational history, story of school attendance, behavior and achievements.
  1. Age of child when enrolled.
  2. Date of entrance.
  3. Names of different schools attended with attendance record from each, if possible.
  4. Grades passed, repeated, etc.
  5. Behavior record.
  6. Previous teachers' comments concerning the child.
  7. Child's ability in various subjects (standard test results, if possible—his M. A. and I. Q.).
  8. Ability of child to adapt himself socially to the school group.
  9. Extracurricular interests.
V. Story of child's likes, dislikes, aptitudes.
VI. Miscellaneous items.
VII. *Remedial program* proposed by the teacher in the light of the information in items I to VI above inclusive, which enables her to understand the child so that she may be more able to win his friendship and help him through better guidance to benefit from his school work.

That this problem of progress still looms large on the horizon of the school program is evident from the following statements made by Superintendent Gerling, in the 1930 report of the board of education of the city of St. Louis:

For many years the retardation of pupils has been a subject for discussion and research study. No adequate solution of the problem, however, has been advanced * * *. Retardation has continued in the elementary schools, particularly in grades 3 to 6. In the higher grades, particularly in the upper high-school grades, the percentage of accelerated pupils more than offsets the retardation. * * *

The adaptation of methods and curriculum matter to the needs of pupils who are unable to make normal progress is undoubtedly needed. It is well known that such adaptation is attempted widely throughout the system. There is no exact evidence, however, as to the prevalence of such efforts. The greatest contribution to be made toward the prevention of retardation is probably to be found in pedagogical adaptations rather than administrative procedure.

IV. SUPERVISION OF INSTRUCTION

Many studies and surveys of supervisory programs have been made during the past biennium.[55] Analyses have been made of the organization of supervision in State and city school systems and the allocation of responsibility for different phases of the program devised to improve instruction. These studies have also described and evaluated the variety of supervisory technics.

Every effort is being made to provide the classroom teacher with expert leadership and with the physical environment best suited to good teaching. This program enlists the active support of the superintendent of schools in establishing a supervisory organization that assures continuity of experience for children from grade to grade, help for the teacher's immediate problems and guidance in gradually attaining goals requiring consecutive work for a period of time. The program enlists the help of research departments in analyzing pupil achievements and in consequent recommendations for grouping of pupils, for special learnings to be strengthened, and for individual treatment of children with social, mental, or physical handicaps. Upon the general and special subject supervisors and upon the building principal are placed the responsibilities for helping teachers to analyze their individual difficulties and successes and to develop with the teachers such remedial or expansion programs as are needed.

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[55] Direction and Coordination of Supervision, Current Practices of City Superintendents. William G. Brink. Northwestern University. Contributions to Education, School of Education Series No. 3. Public-School Publishing Co., Bloomington, Ill., 1930.

National Conference of Supervisors and Directors of Instruction. Educational Supervision, a Report of Current Views, Investigations, and Practices. The National Conference of Educational Method, First Yearbook. Compiled by a Committee of the Conference; L. J. Brueckner, Chairman. New York City, Bureau of Publications, Teachers College, Columbia University, 1928, 270 pp.

National Conference of Supervisors and Directors of Instruction. Scientific Method in Supervision. Second Yearbook of the National Conference of Supervisors and Directors of Instruction—Compiled by a Committee of the Conference; L. J. Brueckner, Chairman. New York City, Bureau of Publications, Teachers College, Columbia University, 1929, 307 pp.

Department of Supervisors and Directors of Instruction. National Education Association. Current Problems of Supervisors; an Analysis of the Status of Supervision in American Public Schools in 1929. Third Yearbook of the Department of Supervisors and Directors of Instruction. Compiled by a Committee of the Department; J. Cayce Morrison, Chairman. New York City, Bureau of Publications, Teachers College, Columbia University, 1930, 252 pp.

Department of Superintendence. National Education Association. The Superintendent Surveys Supervision. Eighth Yearbook. Washington, D. C., 1930, 471 pp.

Department of Elementary School Principals. National Education Association. The Principal and Supervision. Tenth Yearbook of the Department, National Education Association. Washington, D. C., 1931, 652 pp.

Association for Childhood Education (Nursery, Kindergarten, Primary Education). Supervisory Practices. Prepared by the Committee on Supervision, Mary G. Waite, Chairman. Washington, D. C., April, 1930, 49 pp.

FROM THE STATE DEPARTMENT OF EDUCATION

State department staff members assigned to the direction, supervision, or inspection of elementary schools.—Paralleling the remarkable increase in the number of staff members in State departments reported by Schrammel [56] is the increase in the number of staff members assigned to the direction, supervision, or inspection of the various fields of elementary education. To show the variety and extent of such provision a list of such administrative or supervisory officers for each State is here presented, checked in each case except two by a State department official. In order to avoid unwarranted comparisons certain facts should be kept in mind: Certain State departments and certain functions within other State departments are organized vertically (that is, a supervisor of a certain subject may or may not supervise that subject through both elementary and secondary schools), and, therefore, it is difficult to list those persons specifically assigned to elementary education. In some States the State superintendent or commissioner or his assistant or deputy spends considerable time in the direction or supervision of elementary schools, but this is not always so stated in the reports. In other States, supervisors of rural schools work out from the teachers colleges under the direction of the State department, but they are not included in these reports. In some instances, it is not specified whether the director or supervisor of elementary schools works with urban schools, with rural schools, or with both. It is possible that in the omission of some positions from those enumerated in the following list (such as administrator of the equalizing fund, director of research, director of libraries, etc.) some have been omitted whose services include the supervision of instruction. The list has been prepared, however, to indicate the extent to which State departments of education have provided officials who work directly with elementary schools. Since the work of State departments in special education has been included in another section of the biennial, staff members in charge of this phase of work are not included here.

Alabama: 1 director of elementary education (director also of teacher training and certification): one supervisor of elementary education; 1 director of negro education; 3 supervisors of negro education; 1 (acting) director of physical education. "These individuals work mostly in rural schools, although they have some connection with urban schools."

Arizona: None.

Arkansas: 1 elementary school supervisor; 1 supervisor of negro education.

California; [57] 1 chief, division of rural education; 1 chief, division of health and physical education; 1 chief, bureau of physical education for girls.

Colorado: None.

[56] Schrammel, Henry E. The Organization of State Departments of Education. The Ohio State University Press, Columbus, 1926.

[57] Not checked by State officials.

Connecticut: 1 field supervisor of urban education; 1 senior supervisor of rural education; 26 supervisors of rural education;[58] 1 senior supervisor of health and physical education; 1 assistant in health and physical education; 1 assistant in art education; 1 assistant in nature study.

Delaware: 1 assistant superintendent in charge of elementary schools (rural schools); 4 visiting teachers; 7 rural supervisors;[58] 1 director of physical education; 1 director of art; 1 supervisor of art; 1 director of music; 2 supervisors of music.

Florida: 1 supervisor of elementary schools (works with both rural and urban schools); 1 agent for negro rural schools; 1 supervisor of physical and health education.

Georgia: 2 supervisors of negro education; 3 supervisors of rural education.

Idaho: "The State superintendent is director of elementary education for all districts except independent class A and chartered and is general director of rural education."

Illinois: 1 supervisor of city elementary schools; 1 supervisor of country and village elementary schools; 1 supervisor of physical education.

Indiana: 1 director of elementary education (also director of high-school education); 1 assistant director of elementary education (also assistant director of high-school education); 1 director of school relief; 1 assistant director of school relief. "All of these individuals work in both rural and city schools, the latter two doing most of the inspection in the poorer school districts of the State."

Iowa: 1 inspector of graded and high schools; 1 inspector of rural schools; 1 inspector of consolidated schools; 1 inspector of mining-camp schools. "All of these inspectors except the one for the rural schools have to do with both grade and high school inspection."

Kansas: 2 rural school supervisors. "Our two high-school supervisors spend part of their time inspecting the 50 or 60 junior high schools of the State, two-thirds of whose work may well be classified as elementary."

Kentucky: 2 supervisors of rural schools; 1 rural school agent; 1 director of music.

Louisiana: 1 supervisor of elementary schools; 2 assistant supervisors of elementary schools; 1 agent of schools for negroes; 1 assistant agent of schools for negroes; 1 supervisor of home economics; 1 assistant supervisor of home economics; 1 supervisor of agriculture; 1 assistant supervisor of agriculture. "The members of our elementary division make no distinction between country and city schools."

Maine: 1 deputy commissioner of education and supervisor of teacher training and elementary instruction; 2 agents for rural education; 1 general agent for schools in unorganized territory; 1 director of vocational education and supervisor of manual training (in elementary and secondary schools); 1 supervisor of home economics (in elementary and secondary schools).

Maryland: 1 assistant State superintendent in charge of elementary instruction (rural and urban); 1 supervisor of elementary schools (rural and urban); 1 supervisor of colored schools; 1 supervisor of music; 1 supervisor of physical education (part time).

Massachusetts: 1 director of elementary education (also director of secondary education and normal schools); 1 supervisor of elementary education; 1 supervisor of physical education (in elementary and secondary schools); 1 assistant supervisor of physical education (in elementary and secondary schools);

[58] Since these officials are assigned to a definite territory they are sometimes enumerated in lists of local supervisory officials.

1 supervisor of safety education (in elementary and secondary schools). "All of these supervisors deal with elementary education in both rural and urban schools."

Michigan: 1 superintendent of rural education division; 5 supervisors of rural schools; 1 director of physical education; 1 assistant director of physical education; 1 director of music education.

Minnesota: 1 director, graded elementary schools; 1 director, ungraded elementary schools; 3 assistant directors, ungraded elementary schools; 1 director of physical and health education (covers both divisions of the elementary field and also high school).

Mississippi: 1 supervisor of negro schools; 1 agent of negro schools; 1 supervisor of rural schools; 1 supervisor of music.

Missouri: 1 director of negro education; 1 director of rural school supervision; 4 rural school inspectors; 1 director of physical education; 1 assistant director of physical education; 1 supervisor of music.

Montana: 2 rural school supervisors.

Nebraska: 1 director of rural education.

Nevada: 5 deputy superintendents.[58] These officials supervise both elementary and secondary schools, urban and rural.

New Hampshire: 1 elementary school agent; 1 supervisor of health.

New Jersey: 1 assistant commissioner of education in charge of elementary schools; 1 director of health and physical education; 1 assistant in physical training; 1 assistant in health education; 55 helping teachers (8 are for music, 1 for health).[58] "These helping teachers are assigned by the State Department to the various counties to supervise elementary schools."

New Mexico: 1 rural school supervisor.

New York: 1 assistant commissioner in charge of elementary education (both rural and urban); 1 chief, rural education bureau; 3 supervisors of rural education; health and physical education division; home economics education bureau; visual instruction division. The education department is organized both on a horizontal and vertical basis. Individuals in each of the divisions starred give time and attention to both elementary and secondary education.

North Carolina: 1 director of elementary instruction; 2 supervisors of elementary instruction; 1 inspector of elementary schools; 1 director of negro education; 1 assistant director of negro education; 1 supervisor of colored elementary schools.

North Dakota: 1 director of rural education; 2 supervisors of elementary education (during a large part of the year work with teachers in rural schools).

Ohio: 1 consultant in elementary education (conducts a model school); 1 rural school supervisor; 1 supervisor of physical education; 1 supervisor of music; 1 director of visual education; 1 director of radio education; 1 assistant director of radio education.

Oklahoma: 1 rural school supervisor; 2 assistant rural school supervisors.

Oregon: 1 supervisor of rural education (also supervisor of club work).

Pennsylvania: 1 deputy superintendent, school visitation and advice; 1 director of elementary and kindergarten education (both rural and urban schools); 1 director of rural service bureau; 2 assistant directors, rural service bureau; 1 director of health and physical education; 4 supervisors of health and physical education; 1 director of art education; 1 director of music; 1 director of visual education; 3 supervisors of industrial arts education; 2 supervisors of home economics; 3 supervisors of agricultural education.

Rhode Island: None.

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[58] Since these officials are assigned to a definite territory they are sometimes enumerated in lists of local supervisory officials.

South Carolina;[57] elementary school supervisor; 1 rural school supervisor; 1 agent for negro schools; 1 assistant agent for negro schools.

South Dakota: 1 supervisor of elementary education (works exclusively with rural schools).

Tennessee: 1 agent for negro schools; 2 rural elementary school supervisors.

Texas: 1 chief supervisor of rural schools; 11 supervisors of rural schools; 1 special rural school agent in negro education.

Utah: 1 supervisor of grammar grades and junior high school; 1 supervisor of primary grades. "Appointed to work with both urban and rural schools, outside of five cities of the first and second class."

Vermont: 2 deputy commissioners (probably four-fifths of their time is devoted to the elementary schools); 2 helping teachers (supervision and direction of elementary schools).

Virginia: 1 supervisor of negro education; 1 supervisor of rural education; 1 assistant supervisor of elementary education; 1 director of physical and health education; 8 assistant supervisors of health and physical education.

Washington: 2 elementary and rural school supervisors; 1 supervisor of home economics. "About one-half of her time is devoted to the particular problems found in the graded and rural schools."

West Virginia: 1 supervisor of negro schools; 1 supervisor of rural schools; 2 assistant supervisors of rural schools; 1 director of physical education.

Wisconsin: 3 supervisors of elementary schools; 2 supervisors of rural schools; 3 supervisors of State graded schools.

Wyoming: The commissioner of education has rural education as one of his special duties. The State superintendent and deputy State superintendent also work in this field.

Supervision program in Alabama.—An effective organization of a State supervisory staff has been made in the State of Alabama. Here a close connection is made between pre-service and in-service training for teachers through a system of supervision conducted cooperatively by the State teachers colleges and the counties. This method of organization makes it possible to follow students into the field of teaching, to discover their chief difficulties, and to strengthen those phases of work in the curriculum of the teachers colleges. The following report is given by the State Department of Education of Alabama for the year 1930:

The work of supervision (of the public elementary schools outside of the cities of the State of Alabama) has been carried on during the year through 5 regional and 52 county supervisors of elementary instruction. * * * The services of the 5 regional supervisors are contributed by the 4 teachers colleges and the 1 normal school for white teachers in Alabama. These regional supervisors conduct county institutes, visit counties which have supervision and those which do not have supervision within their respective territories, and furnish general leadership and direction in the field of elementary supervision. The 52 county supervisors render a similar service to the schools and teachers of their respective counties.

During the year the work of 100 beginning elementary teachers and 60 beginning secondary teachers has been closely followed up by the 5 elementary

[57] Not checked by State officials.

regional supervisors and 3 of the secondary supervisors. The purpose of this follow-up work has been twofold: First to help the beginning teacher adjust herself to the problems of teaching; second, to discover what if any changes need be made in the method of training teachers. Each regional supervisor assumed responsibility for a close follow-up study of 20 beginning teachers.

Each of these 20 beginners was visited three times during the session. This follow-up study has resulted in the tabulation by each regional supervisor of a mass of information relative to each beginner. When this is properly organized, it is believed it will prove helpful both to teacher-training institutions, to supervisors, and to the beginning teachers themselves.

WITHIN CITY SCHOOL SYSTEMS

Organization of supervisory units in city school systems.—In city school systems necessary coordination of programs of work from grade to grade is greatly assisted by the administrative organization of supervisory units. The greatest number of cities of all population sizes places the general supervision of elementary grades and kindergartens under one supervisor or under one director who coordinates the programs of supervision delegated to the kindergarten-primary or primary grades in cities not maintaining kindergartens, and to the intermediate grades. The following table shows the types of general supervisory organization in 620 cities for the year 1929–30. Comparison with a similar distribution for the year 1926 [59] shows that no material change has been made in the ratio of cities having unified or segregated supervisory units.

TABLE 9.—*Types of supervisory organization in city school systems*

Population: Size of cities [a]	Number and per cent of cities				Number of cities having each type of supervisory organization									
	Replying to inquiry		Reporting general supervisors		Combined					Separate				
	Number	Per cent of total number of cities	Number	Per cent of cities replying	Kindergarten - primary	Kindergarten - elementary	Kindergarten - elementary in 2 units (K–3) (4–6)	Elementary		Kindergarten and primary	Kindergarten and elementary	Kindergarten and elementary in 3 units (K)(1–3)(4–6)	Primary only	Kindergarten only
								As one unit (1–6)	As two units (1–3) (4–6)					
100,000 and over	67	98.5	65	97	10	7	[c]16	7	2	4	5	9	1	4
30,000 to 100,000	153	82	126	82	10	31	24	21	12	1	6	4	12	5
10,000 to 30,000	337	65	175	52	10	[b]45	12	50	10	1	4	1	33	9
2,500 to 10,000	983	48	254	26	12	51	4	61	26	8	8	7	49	28
Total	1,540	76.5	620	40	42	134	56	139	50	14	23	21	95	46

[a] 1920 census.
[b] Includes 1 unit of nursery school through the sixth grade.
[c] Includes 1 unit of (nursery school–2) (3–6).

[59] Nursery-Kindergarten-Primary Education in 1924–1926. Mary Dabney Davis. U. S. Bureau of Education, Bulletin, 1927, No. 28.

Variety of a supervisor's responsibilities.—There is strong contrast between the former notion of general supervision as an inspectorial process and the many demands for leadership and guidance which the present school program requires. The variety of activities and responsibilities included in a general supervisor's year are suggested in the report of the kindergarten-primary department given in the Annual Report of the Public Schools of the City and County of San Francisco for the year 1929. The section of this report entitled "The Year's Program" is given as follows:

During the year seven principals' conferences were held for demonstration of work, reports, and discussion. Regular monthly demonstration lessons were conducted for probationary and substitute teachers. Ten open-house days and demonstrations were given for experienced teachers.

The main developments in the work may be summarized as follows:

(*a*) Research and committee work: (1) Textbook evaluation. (A committee of principals and teachers assisted the director of kindergarten and primary grades in the scoring of books for State adoption.) (2) Home and school cooperation committee. (A large committee of expert teachers participated in a study of home and school cooperation. Parents of children kept records of home reactions of children.) (3) Bulletin, "An Activity Program in the Social Studies for Kindergarten and Primary Grades." (4) Book committee. (Recommendation made concerning books to be purchased for next year.) (5) Records of junior primary work looking toward a bulletin. (6) Lesson plan committee. (7) Committee on evaluation of original songs and poems by the children. (This work has been in progress for two years and is now ready to go to press.)

(*b*) Decided growth in work of experienced teachers. (Occasioned largely by demonstration and committee work.)

(*c*) Continued growth of probationary teachers. (Occasioned largely by meetings, demonstrations, conferences, and visits of helping teachers.)

(*d*) Closer cooperation and better understanding on part of principals. (Occasioned by conferences and demonstrations for principals and by bulletins issued.)

(*e*) Marked growth in teacher initiative as shown in committee, research, and experimental work.

(*f*) A better understanding of a broad and varied reading program.

(*g*) Growth of children's use of library reading copies and in children's records of reading done.

(*h*) Growth in teachers' ability to place responsibility on the children. (Group planning, group criticism of results, and children's committees.)

(*i*) Improvements in music and art work in all lower grades—special skill shown in creative work.

Supervisory aids.—Two ways of using demonstration lessons as effective help for teachers have been reported from Seattle [60] and Baltimore.[61] For the past four years Seattle has designated one entire school building as a demonstration center. The school exem-

[60] Triennial Report of the Public Schools. Seattle, Wash., 1930.
[61] Annual Report of the Board of School Commissioners. Baltimore, Md., 1929.

plifies approved teaching method and superior teaching technics and the program for making it an effective agency for helping classroom teachers throughout the city has developed gradually.

At scheduled times teachers from other schools within the city observe the work of the demonstration teachers. Following the observation they join in a discussion with the teacher in charge, the principal of the school and other visitors. Teachers report that this program of seeing classes in action gives them a clearer idea and leads to more lasting impressions than does participation in abstract discussions.

This plan for aiding teachers also gives the supervisory and administrative staffs an opportunity to study problems related to their particular fields of work before city-wide recommendations are made.

In Baltimore [62] after-school demonstration courses for teachers were offered in seven centers for the intermediate grades, and eight centers for the primary grades. This type of teacher-training in service was started in 1925 when new courses of study contained new material and new methods of teaching were required.

> In order to make these courses of study effective, a series of demonstration lessons was given for principals and later for teachers. The interest in these lessons was so great that plans were made to develop them into extension courses of college grade carrying college credit. Centers were organized in various sections of the city in grades 4, 5, and 6, the classes enrolling for two hours a week throughout the year. The initial registrations were so heavy that the number of centers was immediately doubled and the following year centers were opened in the kindergarten and grades 1, 2, and 3.
>
> In the four years the courses have been offered, about 80 per cent of the teachers in the elementary schools of Baltimore have been in regular attendance for at least one year.
>
> Teachers of exceptional ability are chosen for demonstration work and placed in school centers which are accessible for a large section of the city. All demonstrations are held after school hours, in order that there may be no interruptions to the regular work of the schools. No difficulty has been experienced in securing the voluntary attendance of pupils at these 4 o'clock sessions.

Alabama has offered its teachers reading circles, supervisors' study courses and extension classes as part of the supervisory program for the State. An indication of the progress in professional spirit among the teachers is shown by the large number enrolling. The trend is toward enrollment in extension classes and away from study circles. During the year 1929–30 there were 45 per cent of the 16,795 negro and white teachers enrolled in these extension courses.

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[62] Annual Report of the Board of School Commissioners. Baltimore, Md., 1929.

Talking pictures, introduced within the past two years by a research division of a commercial electric company, have contributed a new device for in-service training for teachers. The subjects for these pictures have been chosen and their development supervised by highly trained educational specialists. Limitations of time and space are eliminated by the pictures which bring lectures and classrooms in operation before a group of teachers prepared to study the teaching technics and the underlying educational philosophy presented. These pictures have an advantage over observation of actual classrooms in that it is possible to repeat incidents or sections of the film and verify activities or clear confused ideas. The range of possibility for service offered by these films is practically limitless.

One rather strategic opportunity for cooperation which can be a material aid to supervision is the large group of teachers' professional organizations. In some instances, the teachers' clubs are for purely social purposes or for a combination of social and professional work. In other instances, the meetings formerly called by supervisors are incorporated in educational programs planned for the teachers' club. In still other instances, the topics presented in the supervisory meetings become material for discussion groups sponsored by the teachers' club. Such discussions offer opportunity for teacher-initiated studies of school procedures. State and national relationships of teachers' organizations are helping to broaden local points of view and to arouse widespread interest in new methods and materials of education.

The value of assistance for supervision from a division of educational research can not be overestimated. A continuing survey of the measurable products of instruction throughout a school system gives an objective picture of achievement and indicates the points of strength and weakness in school instruction. Both survey and diagnostic testing programs suggest to the supervisory force bases for revisions of curricula, methods of teaching and of classroom organization as well as for remedial work to improve both group and individual performance. The following quotation illustrates a supervisor's use of a testing program:

> A comprehensive diagnostic testing program in the fundamental operations of arithmetic was administered at the beginning of the term in September, 1929. School, district, and city summaries of results were analyzed and general diagnosis was made. Supervisors of the division visited principals in the several schools and planned with them detailed remedial procedures suggested by the analysis of test results. One of the first needs that developed through these contacts was that of satisfactory drill and test material in the fundamental operations. In consequence, supervisors and principals designed material to aid in the correction of individual and group difficulties. * * *

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On a basis of these general recommendations teachers and principals were encouraged to work out procedures which were likely to produce the greatest improvement in pupil performance in each local school and class situation. As an aid to school and class diagnosis, a progress chart was designed and a procedure developed for the maintenance of individual pupil records on the several subtests, each of which represented a particular type of difficulty in the fundamental operations.[63]

Arguments in favor of active participation by teachers in the program of research are given in the 1930 report from the board of education of the city of St. Louis.[64]

In general, the purpose in the use of tests is to improve the educational situation for the particular child tested. Benefits will not accrue to a child by homogeneous grouping, segregation, retardation, accelerated promotion, or any other kind of administrative device, except in so far as the device contributes to an improvement of the conditions upon which learning depends. If the teacher is given sufficient liberty in adapting the curriculum, sufficient freedom in exercising her judgment as to method and technique, she will be able to diagnose most of her educational problems by using the various available tests and to apply the needed remedies. Principal and supervisor will help the teacher, of course, to interpret test results.

V. RESEARCH AND INVESTIGATION IN ELEMENTARY EDUCATION

THE SERVICE OF RESEARCH TO ELEMENTARY EDUCATION

Compilations and analyses of research studies in all phases of elementary education testify to the continuing dependence of those concerned with the education of elementary-school children upon research and investigation as a means of answering important questions concerning the administration, organization, curriculum, and methods of the schools and measurement of the results of their practices. In a recent analysis [65] of the amount and character of scien-

TABLE 9.—*Amount of research produced in various levels of education*

Level	1920–1929		Total for 40-year period	
	Number of articles	Per cent	Number of articles	Per cent
Elementary	597	29.85	932	32.85
Elementary-secondary	124	6.2	203	7.16
Secondary	520	26.0	756	26.65
Secondary-higher	44	2.2	67	2.36
Higher	715	35.75	879	30.98
Total	2,000	100	2,837	100

[63] Report of Division of Educational Research and Results. School District of Philadelphia, June 30, 1930, p. 52.

[64] Seventy-sixth Annual Report of the Board of Education. St. Louis, Mo., 1930.

[65] Franke, Paul R., and Davis, Robert A. Changing Tendencies in Educational Research. Journal of Educational Research, 23: 133–145.

tific research in education in representative educational periodicals over a period of 40 years, the authors concluded that although the greatest increase in research in the last decade has been in the level of higher education, nevertheless in total research over the 40-year period "the elementary level has been considered the most important by research workers."

Irrespective of the school levels it is interesting to see which fields of education and which research methods have received greatest emphasis in the last decennial period.

TABLE 10.—*Amount of research in various fields, 1920–1929*

Field	Number of articles	Per cent
Educational measurement and statistics	844	42. 20
Administration	233	11. 65
Methods	189	9. 45
Curriculum	161	8. 05
Educational psychology	140	7. 00
Teacher training	125	6. 25
Guidance	119	5. 95
Child-psychology	102	5. 10
Character	72	3. 60
Physical education	15	. 75
Total	2,000	100

TABLE 11.—*Amount of research produced by each method, 1920–1929*

Method	Number of articles	Per cent
Statistical	852	42. 37
Experimental	514	25. 56
Questionnaire-correspondence-interview	303	15. 06
Job analysis, activity analysis, social survey	206	10. 24
Comparative-survey	88	4. 38
Case studies	31	1. 54
Historical-legal	17	. 85
Total	2,011	100

AGENCIES CONDUCTING RESEARCH

Many agencies—National, State, and local—and many individuals are contributing in this field of educational work. Some description of their programs and publications in phases of elementary education may serve to indicate the extent and character of the work now being carried on.

National professional organizations of teachers, principals, supervisors, and others tend to pass through three stages—organization, expansion of membership and program, research or investigation of problems within their own fields. Some of these research programs are very extensive, including the organization of nation-wide committees for several years of work, and the publication of year-

books or other summaries. Some are less extensive, serving rather to foster and publish the results of individual study. The published results of the research in elementary education of some of these national professional organizations are listed below:

TABLE 12.—*Published research in elementary education by national professional organizations, 1928–1930*

Organization	Form of publication	Title of publication	Character of publication
Department of Superintendence of the N. E. A.	Seventh yearbook, 1929.	The Articulation of the Units of American Education.	Studies and summaries of studies bearing on articulation problems of different levels.
Department of elementary School Principals of the N. E. A.	Seventh yearbook, 1928.	The Elementary School Principalship.	Reports of investigations conducted under the direction of the committee and also independently on standards and training for elementary principalship.
	Eighth yearbook, 1929.	Activities of the Principal.	Studies of administrative and supervisory activities of the principal.
National Conference of Supervisors and Directors of Instruction (now department of N. E. A.).	First yearbook, 1928.	Educational Supervision.	Individual contributions in (1) organization of supervision; (2) activities and training of supervisors; (3) technique; (4) philosophy.
	Second yearbook, 1929.	Scientific Method in Supervision.	Individual contributions on present status, various techniques in supervision.
	Periodical	Educational Method	Shorter reports of experiments and practices.
Department of Classroom Teachers of the N. E. A.	Third yearbook, 1928.	Problems and Opportunities in Teaching.	Reports unusual opportunities in teaching, teaching standards, teacher load, and activities of teacher organizations.
	Fourth yearbook, 1929.	Creative Teaching and Professional Progress.	Descriptive accounts of creative activity.
National Society for the Study of Education.	Twenty-eighth yearbook, 1929.	Preschool and Parental Education.	A survey of the fields and bibliography of research.
	Twenty-ninth yearbook, 1930.	Arithmetic	Reports of modern thought and research in arithmetic.
National Council of Geography Teachers.	Periodical	Journal of Geography.	Contains reports of research as well as descriptive accounts of classroom activities.
National Council of Teachers of English.	Periodicals, reports, etc.	English Journal and Elementary English Review.	Contain reports of research as well as descriptive accounts of classroom activities.
National Council for the Social Studies.	Periodical	The Historical Outlook.	Contains reports of research as well as descriptive accounts of classroom activities.

Other national professional organizations, such as the Association for Childhood Education, the American Educational Research Association, and the National Council of Supervisors of Elementary Science report the formulation of research programs on important problems in their own fields.

The most extensive research combining the efforts of specialists in the fields of education, health, and social welfare was, of course, that of the White House Conference on Child Health and Protection. The following limited list of some of the studies carried on by various committees and individuals will serve to show the range of problems included and their implications for elementary education: The attitude of medical schools, physicians, and parents toward

health examinations; the utilization of preventive measures in both urban and rural areas; health service in rural areas; the home environment of 8,000 school children; social and economic factors affecting family life to-day; standards of expenditures for adequate provision for children; survey of institutions for the education and training of young children; survey of the education and training of the young child in the home; the school health program; the training of teachers for the responsibilities of the health program; child labor laws; and the recreational facilities for school children.[66]

The point of view of State departments of education in establishing research programs seems to be well stated by Dr. W. J. Osburn in describing the work of the Division of Educational Research of the Ohio State Department of Education, when he says that research is becoming increasingly necessary in the development and administration of a State's educational policies. Many State programs include research and investigation in problems pertaining to the elementary field. The following brief list of studies selected from those reported by State departments of education for the year 1929–30 [67] will indicate something of the types of studies carried on by State departments:

TABLE 13.—*List of research studies, 1929–30*

Type or field of study	Title	State
Survey	A survey of educational conditions in rural and city schools in Wisconsin.	Wisconsin.
Do	Census of handicapped children in Iowa	Iowa.
Do	Rural school conditions in general, including equalization, school taxes, and all school problems.	Michigan.
State-wide testing	Achievement of North Dakota high-school pupils in the minimum essentials of English.	North Dakota.
Curriculum principles	Guiding principles, educational objectives, and committee members for the elementary curriculum revision.	South Dakota.
Do	Guiding principles of elementary curriculum revision for the State of Indiana.	Indiana.
Curriculum evaluation	Report form for evaluation of course of study	Do.
Method	Present practices in health teaching in elementary schools	New York.
Teacher supply	A study of teacher supply and demand and teacher training in the State of Oregon.	Oregon.
Age-grade	Age-grade conditions in Maryland county colored schools as of November, 1929.	Maryland.
Pupil accounting	Uniform financial and child accounting system for Alabama	Alabama.
Costs	A study of elementary and high-school costs in districts maintaining class A high schools and high-school departments.	Minnesota.

State teachers' associations, although probably most concerned with tenure, salary, certification, and related problems, do, however, engage in other types of studies, as is shown by the following illustrations

[66] White House Conference. New York, The Century Co., 1930.

[67] Educational Research Studies of State Departments of Education and State Education Associations. Edith A. Wright. Office of Education Circular No. 31.

also from Office of Education Circular No. 31, all of which concern phases of elementary education:

TABLE 14.—*Types of studies reported by State teachers' associations*

Type or field of study	Title	State
Objectives	Objectives in arithmetic	Oregon.
Principalship status	Standards and status of the elementary school principalship in North Carolina.	North Carolina.
Teacher supply	The relation between the demand and supply of elementary teachers in Ohio in 1928–29, with special reference to the question of raising the statutory training requirements for admission to the profession.	Ohio.
Child accounting	Uniform child accounting system for Iowa	Iowa.
School-study progress	The school-study progress of the transported pupil	Washington.
State aid	A study of State aid for public education	South Carolina.

Because of their close association with the actual classroom work research divisions in city schools are in a strategic position to make contributions in the fields of setting up performance standards or goals, experimental testing of methods and materials, and case studies of pupils' physical, intellectual, and emotional development. Although many city research divisions must devote a large proportion of their efforts to phases of administrative research, some of the most valuable contributions to elementary-school administrative and instructional improvement have been made by them. The following titles of studies in elementary education reported by several city research divisions show something of the variety of their work:

Baltimore. Educational investigations concluded or in progress, December, 1930: Similarities of bright and dull children; geography achievement in our junior high schools; arithmetic test results of 7B's; semiannual city-wide test survey; record of children's response in kindergarten activities; characteristics of bright and dull children; health education course of study; relative difficulty of primary readers; suggestions for teaching reading to slow children; curriculum units of intermediate grades; a supervisory study of remedial instruction in the solution of arithmetic problems; spread of ability in arithmetic and its relation to promotion and curriculum revision; experimental determination of course of study materials in geography and history; adaptation of curriculum to dull and bright pupils; standards of promotion; migrant school child inquiry; influence of environments upon school attendance.

Los Angeles. Third Yearbook of the Psychology and Educational Research Division (School Publication No. 185, 1929): Service and studies in elementary schools: A. Surveys with standardized tests; B. Special classes for children who are superior in mental ability, educationally retarded and slow learning, nonreaders, underweight or anemic, subnormal; C. Research studies: An experiment in grading and classifying; predicting ability in art; reading readiness in children entering first grade; personality traits of children of superior intelligence in special classes and in regular grades.

Houston. Reported in Office of Education Circular No. 18 (for 1929–30): Effect of setting up curriculum schools on the achievement in such schools in the fundamental subjects compared with the achievement in other schools not

so designated; the effect on achievement of compelling personal hygiene and supplying free breakfasts to pupils in all foreign language speaking families; determine the score necessary on the Park-Franzen test which will indicate readiness to do first-grade work; a study of grade-placement of primers and first readers; a study of the effect of increasing the amount of silent reading in the high fourth grade and diminishing oral reading; a study of natural science reading materials; a study to increase speed in a high second grade; the effect on school achievement of changing the age of entrance from 7 years to 6 years; a study of the effects of proper health habits upon school children's work; a study of the problem of teaching English to foreign-speaking children.

Of particular importance in the work carried on by city research divisions is the growing interest in problems which extend over a period of years. Educational research has been criticized by workers in other fields because of its emphasis upon immediate results. Two studies, each of which extends over a period of several years, are of sufficient interest to be described briefly:

In Berkeley, Calif., the Bureau of Research and Guidance of the Public Schools, with Dr. Virgil E. Dickson as director, is conducting a 5-year study of problem children. The purpose of the study is to discover the most serious behavior problems of about 200 pupils ranging from kindergarten to high school, to analyze the causes of such maladjustments, and to demonstrate the effectiveness of a guidance program which includes the services of physicians, psychiatrist, and social worker. The progress of a group of pupils in correcting their behavior difficulties with such specialized counseling is to be compared with that of two other groups: (1) A group of problem pupils who are receiving only the usual school guidance; and the other, a group of normal children chosen to parallel the experimental group in age, grade, and intelligence. Standardized tests, behavior rating scales, and the opinions of the specialists concerned will be used as measures of progress. Such a study will give us exact information concerning the efficacy of methods of counseling.

In Detroit a valuable experiment has been conducted by the Department of Research during 1928–1930 to measure the effectiveness of several different types and degrees of individualization. In this experiment, involving approximately 13,000 children, 13 elementary schools were organized and instructed on six plans of individualization—the Dalton, the Winnetka, the Detroit, mass instruction, informal individualization, and vertical grouping. The effectiveness of these plans was judged both as to their effects upon pupils' development and as to the feasibility of their operation. An elaborate measurement program included tests at the beginning and end of the 2-year period. In discussing large-scale experimentation Doctor Rankin, director of research, says: "If control experiments had

been carefully conducted on all questions of educational method and materials, and if practice had been changed to conform to the findings, we should be much nearer an educational Utopia than we are at present." [68]

University and college graduate schools and bureaus of educational research contribute each year a very great number of studies pertaining to elementary education. In some cases a series of related studies is undertaken in a certain field, the sum total of which may result in recommendations of very considerable significance. The graduate studies in reading at George Peabody College, the series of "Studies in Character" from the Institute of Character Research at the University of Iowa, the series of circulars from the Bureau of Educational Research at the University of Illinois on how to make courses of study in the different subjects, illustrate the possibilities that schools of education have to influence educational thought and practice. A recent compilation of studies on why pupils fail included 20 which were reported to the Office of Education as being completed during 1927–1929, all but five of which were graduate studies undertaken at a college or university, which such specific titles as "Studying individual differences of pupils with teachers for the purpose of explaining some reasons for failures," "Causes of failures in junior high school among boys of superior intelligence," "A study of causes of failure of pupils in grades 7, 8, 9."

Some of the most helpful material for elementary-school use comes from experimental and demonstration schools of universities and colleges. The following statements received from directors and supervisors of several schools in reply to a letter asking for materials developed experimentally show the contributions made by them and often available in published form:

A. University Elementary School, School of Education, University of Missouri. Dr. C. A. Phillips, director.

"1. We have written material covering all early Americans. * * * This is third and fourth grade material in our curriculum. In this the geography and history are very well integrated. * * * All sorts of activities are featured in connection with the work.

"2. For five years we have been developing the teach-test-study technique in spelling.

"3. For three years we have been attempting to build a course of study in music, based on children's activities and interests in that field.

"4. For three years now we have been attempting to discover children's interests in certain art matters, beginning with our kindergarten.

"5. For five years we have been attempting to discover children's interests in the various types of reading materials. This study has gone on in connection

[68] Rankin, Paul T. The Technique of the Large-Scale Experiment. Journal of Educational Method, 8: 499–504.

with books of a juvenile character, but we have written for our own use a large number of stories of home life and relating to our nature environment and other matters.

"6. A very interesting study has been carried on in our kindergarten for three years in which we have attempted to discover children's responses to the various types of rhythm."

B. The Lincoln School of Teachers College. Reported by Gertrude Hildreth, of Lincoln School.

"The unique contributions of the Lincoln School to elementary education include four major achievements—curriculum construction with resulting alteration and improvement of methods and equipment; the construction of new materials of instruction, particularly textbooks and supplementary reading material; provision for creative expression through inclusion in the program of opportunities for self-expression, and the development of a new field of learning and instruction, 'creative music'; the objective study of pupil progress through the use of standardized procedures, the results of which are used in educational guidance and in improving individual pupil adjustments."

The curriculum construction of which Miss Hildreth speaks has eventuated in a series of curriculum units for elementary grades.

C. State Teachers College, Milwaukee, Wis. Dr. Adelaide M. Ayer, Director of Training.

"1. For three years we have been experimenting with report cards in order to do away with the many evils that come from the ordinary system of reporting marks * * *. In this plan children do not see their report cards at all and only with a few children are marks ever discussed or comparison ever made. Instead, each teacher has individual conferences with the parents four times a year (this may be cut down to three times later). In these conferences emphasis is particularly put on character traits and habits of work.

"2. Gradually the entire school is being put on an activity basis. That is as true of the upper grades as of the primary grades."

The "Curriculum Series" reports the activity curriculum.

D. University Elementary School, College of Education, State University of Iowa. Maude McBroom, Principal.

"1. *Music:* Experimental work with method and material to substantiate the theory that music can and should be a matter of leisure and should be enjoyed by all school children.

"Course of study for listening lessons in music; units in correlation of music and literature; course in music for first six grades.

"2. *Reading and literature:* Experimental work with appreciation work, what some of the most profitable methods have been in literature.

"Skills necessary in use of index; survey of the course of study in reading, giving a general outline of what to teach; favorite poems of children in different grades; overlap of teachers' and children's choices in poetry; books which will develop world friendliness.

"3. *Spelling:* The efficiency with which children can be expected to learn to spell in 15 minutes daily 2,840 of the commonest words in writing; the effect of excusing children entirely from the study of spelling, when they make high scores on pretests over the words to be studied.

"4. *Character education:* Experimentation with types and organization of student council over a period of four years; Experimentation with citizenship

sheets as a means of getting desirable character results; Experimentation with the delivery of responsibilities of the school into the hands of children; Rating of habit formation in junior primary to determine the feasibility of using such a scheme in an ordinary public school.

"5. *Social studies:* An endeavor to make some sort of tests or objective criteria for determining, in part, readiness of children to enter grade 1 from kindergarten.

"Curriculum units in Indian history; pioneer history; farm life; history of transportation and communication; food, clothing, and shelter; the clay and pottery industries; the forest industries; fuel and power; the steel industry; the history of agriculture in the United States; our relations with South America; how the race has put itself on record; the history of the improvement of health conditions. Strong and weak points of the socialized recitation after several years of experimentation.

"6. *Number:* Course of study for kindergarten and first six grades built on ideas of child growth.

"Informal tests to measure child's mastery of concepts in junior-primary.

"7. *Language:* Course of study in written composition; Course of study in oral composition; Course in voice training.

"8. *Science:* Attempts to arrive at what to teach in science.

"Experimentation with (1) children's interest in given units of study, (2) grade placement of certain units in science, (3) the arrangement of units around problems."

A large number of nursery schools are conducting research in child development; in fact, a fourth of the schools listed in 1929–30 report research in child development as one of their major purposes. These programs of research not only reveal information about child development but also are concerned with techniques of conducting research so that the approach to children can insure as natural a response as possible and reduce refusals to respond to a minimum. Until the organization of the nursery school as a laboratory it was difficult to find access to groups of young children in natural surroundings for observational and experimental purposes. Neither was it possible to offer a neutral ground for the integrating of research conducted in such a variety of fields as education, psychology, medicine, nutrition, sociology, etc. Many of the nursery schools acting as laboratories of research are located in universities where the several colleges and departments have access to the laboratory under certain regulations which protect the children from an oversupply of observation. Other research laboratories are organized as independent units or as part of the research program of public-school systems.

Difficulties which research in this field of work encounters are the comparatively few children available for observation and study considering the thousands of children of preschool age in the United States. This creates a danger that generalization will be made from inadequate data. Two other difficulties are the short span of atten-

tion of young children and the speed of their growth and development. Despite these difficulties studies are providing data which should be helpful to everyone working both with children of preschool age and with those of school age.

SUMMARY

In conclusion, attention may be called to three types of research and investigation of particular value in elementary education, and in which continued interest and activity should be profitable:

1. Summaries of studies in a single field.

The summaries of investigations in reading by Dr. W. S. Gray, in arithmetic by Dr. G. T. Buswell, in language, grammar, and composition by Dr. R. L. Lyman, in spelling by the Catholic University, are all published periodically, thus presenting a continuous record of research findings in these fields. The abstracts or summary statements of the studies multiply the usefulness of the lists. Summaries in other fields, such as study techniques, tests and measurement, pupil accounting, pupil success and failure, would likewise serve to keep workers in the field informed of the results of others' study.

2. Controlled experimentation.

The table on page 53 records the fact that during 1920–1929 about one-fourth of the researches reported in periodicals made use of experimental techniques. This is a higher percentage than a casual examination of most bibliographies of research would indicate. In fact a very careful examination of a report of more than 200 studies in techniques of history teaching revealed fewer than 30 of them to be experimental. This field of the experimental testing of methods of teaching is one in which classroom teachers should help.

3. Case studies.

It is only natural that a majority of researches have dealt with the reactions, activities, interests, and performances of large numbers of cases, in attempts to discover ranges and central tendencies. However, case studies of the learning and behavior difficulties of individuals are adding much to our knowledge of the causes and remedial and preventive measures for such difficulties. The following studies reported in Office of Education Bulletin, 1930, No. 23, indicate how valuable such case studies may be in various fields of elementary education:

1. Hallett, Blanche McNerney. Case study of Ralph ———.
2. Felton, Mrs. B. S. An observational study of the behavior of a preschool child from notes taken by a mother in the home during a 2-year period.
3. Warth, Ellen Wood. A study of the nutrition of a preschool child.

4. Webb, Elmer Ione. Vocabulary of a kindergarten child in a limited sphere of summer activities.

5. McMaster, David D. Case studies of failing pupils in seventh year reading and arithmetic.

6. Carter, H. L. J. An attempt to meet the needs of a group of misfit and retarded children.

It is to be expected that continued research and investigation will develop improved case study techniques which will facilitate the study of the problems of those pupils who vary markedly from the normal in learning and behavior situations, so that schools may, to a greater extent than they now do, make provision for individual differences.

CHAPTER III

SECONDARY EDUCATION

By Carl A. Jessen

Specialist in Secondary Education, Office of Education

Contents.—The numbers of schools and pupils—Reorganization—Junior college—Private secondary education—The curriculum—Articulation—National survey of secondary education—Conclusion.

Among the many factors in the recent development of secondary schools in the United States the following appear to be of especial significance and for that reason have been selected for treatment in this article: (1) The numbers of schools and pupils; (2) the reorganization movement which presents the junior high school as its outstanding contribution to education; (3) the growth in junior colleges; (4) the important part played by private secondary schools; (5) the interest in curriculum revision; (6) the articulation of units which offers especial difficulties for secondary schools; (7) the cooperative attack on the problems of secondary education through an extensive survey national in scope.

THE NUMBERS OF SCHOOLS AND PUPILS

The latest statistics on a national scale available at the time of writing are for the school year 1927–28. In that year 18,116 high schools of all types filed reports with the Office of Education indicating a total enrollment of 4,217,313 pupils. Since some high schools requested to file reports did not do so, it is understandable that the above figures do not represent a complete count. There are on the mailing lists of the Office of Education 22,354 high schools which, according to the best information obtainable, were in operation during the school year, 1929–30.

A feature in the development of secondary education has been the steady increase in the average size of high schools. In 1918 the average enrollment was 124 pupils; in 1920, 133; in 1922, 178; in 1924, 199; in 1926, 211; in 1928, 233. While no one has ascertained in a scientific way what the optimum size of school should be, it is quite

generally agreed that certain obstacles to efficient and economical operation are encountered in the extremely small high school. It is, therefore, significant that the average registration has increased 88 per cent during the 10-year period and that the average gain in enrollment between 1920 and 1928 was 100 pupils per school. That this average size is affected by mounting enrollments in a relatively small number of large high schools is unquestioned; that it would be affected in the opposite direction by a large addition of small high schools is equally true.

REORGANIZATION

In 1928 the Office of Education had record of 4,885 reorganized high schools; that is, high schools which due to a reorganization of units were no longer parts of a system having an elementary school seven or eight years in length followed by a 4-year high school. This figure exceeds by 1,341 the number of schools which two years earlier reported that they had abandoned the 7–4 or 8–4 plan for some type of reorganization. The biennium before that showed an increase of 996 in the number of reorganized schools. The percentage of increase is lower with each succeeding biennium, but the actual gain in the number of reorganized schools is steadily rising. The trends since 1922 may be studied in Table 1. Comparable data for the years before 1922 are not available.

TABLE 1.—*Number and types of reorganized high schools by bienniums, 1922 to 1928* [1]

Type of school	1922	1924	1926	1928
Total	1,566	2,548	3,544	4,885
Junior	387	879	1,127	1,566
Senior	91	181	414	632
Junior-senior	1,088	1,383	1,407	1,486
Undivided (5-year and 6-year)		105	596	1,201

[1] It is not possible to segregate the enrollments in these various types of schools for all bienniums represented in Table 1. It may be of interest to note the relationships which total enrollments in reorganized schools bear to total enrollments in all public high schools. In 1922, 23 per cent of all secondary-school pupils were registered in reorganized schools; in 1924, the percentage had risen to 30; in 1926, to 41; and in 1928, to 46. It is evident that in 1928 the reorganized schools, comprising slightly more than one-fourth of the high schools of the Nation, enrolled nearly one-half of the pupils.

It is apparent that the segregated school is found in increasing numbers. Consistent and significant gains have been registered since 1922 for schools which are units by themselves, namely, junior high schools and senior high schools. Nonsegregated schools, included in the table as junior-senior high schools, show only slight gain in numbers.

The most convincing increase has occurred in the case of undivided, i. e., 5-year and 6-year schools. Their number more than doubled

during the biennium 1926–1928. Losses occurred in only four States; no one of these States had any considerable number of such schools. Increases were distributed over 41 States and were most pronounced in those States which in 1926 had the largest number of undivided schools. Four States (Indiana, Michigan, Ohio, and Pennsylvania) in 1926 had 356 undivided schools; these same States had a total of 558 undivided schools in 1928. In 1926 there were only four States (the ones already mentioned) which had 20 or more undivided schools; in 1928, 14 States had 20 or more such schools. The trends indicate that the undivided school will shortly displace the junior high school as the reorganized school most frequently found.

The growth in the number of undivided schools is an indication that the reorganization movement is finding its way into smaller school systems. The junior and senior segregated schools have been developed principally in larger centers. Examination of the lists from which Table 1 was prepared quickly reveals that the undivided schools are located more often in smaller communities. In this connection it is of interest to note that the average of the enrollments in reorganized schools for 1928 was 401 pupils, a decrease from an average enrollment of 423 in 1926. Thus the trend in enrollment of reorganized schools is in the opposite direction from that observed to be operative in high schools generally.

Distributions of reorganized schools by States, for 1928 are given in Table 2. Parallel information for 1926 is to be found in the chapter on secondary education included in The Biennial Survey of Education, 1926–1928.

TABLE 2.—*Reorganized high schools classified according to type of organization, 1928*

State	Total	Segregated junior high schools								Segregated senior high schools							Junior-senior high schools											Undivided high schools							
		Total	Grades 6 and 7	Grades 6–8	Grades 6–9	Grades 7 and 8	Grades 7–9	Grades 7–10	Grades 8 and 9	Grades 8–10	Total	Grades 8–11	Grades 9–11	Grades 9–12	Grades 10–11	Grades 10–12	Grades 10–13	Total	Grades 6 and 7, 8–11	Grades 6–8, 9–11	Grades 6–9, 10, and 11	Grades 7 and 8, 9–11	Grades 7 and 8, 9–12	Grades 7–9, 10, and 11	Grades 7–9, 10–12	Grades 7–10, 11–12	Grades 8 and 9, 10–12	Grades 8 and 9, 10–13	Grades 8–10 11 and 12	Total	Grades 6–11	Grades 7–11	Grades 7–12	Grades 8–12	Grades 8–13	Grades 9–13	Unclassified
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Continental United States	4,885	1,566	3	40	8	216	1,118	154	22	5	632	3	31	171	1	426		1,480	12	15	2	18	592	3	829	5	8	2		1,201	32	52	925	103		1	88
Alabama	238	44				6	24	12	2		6		1			5		149					2		147					30		1	28	1			9
Arizona	23	3				1	2				3			2		1		8					6		2					9			5	4			
Arkansas	94	17				1	8	8			6			1		5		50					7		42		1			16		1	13	2			5
California	166	93				2	89	2			33			1		32		23					2		21					17			17				
Colorado	93	22				5	17				10			3		7		48					28		20					13			11	2			
Connecticut	38	21				1	20				5			1		4		3							3					9			8	1			
Delaware	5																	4					1		3					1			1				
District of Columbia	12	12					12																														
Florida	124	47					27	20			15					15		37					5		32					23			23				2
Georgia	44	18	1	1	3		10	3			7					7		7	3	1		3								11	2	5	2	2			1
Idaho	16	5				2	3				3			1		2		5					4		1					3			1	2			
Illinois	82	45				12	33				18			11		7		15				1	10		4					4			2	2			
Indiana	362	37				13	24				22			16		6		60				1	33		26					232		4	228				11
Iowa	187	41				14	26		1		25			11		14		93					56		33		3			27			19	8			1
Kansas	165	57				20	37				50			22		28		51					25		26					7			7				
Kentucky	88	14				3	10	1			6			3		3		39					21		18					29			29				
Louisiana	14	6				4	1	1			2		1		1			1	1											5	4	1					
Maine	51	13					6	5	2		13			4		9		19					8		10	1				6			4	2			
Maryland	23	14					14				1					1		8				1	3		4												
Massachusetts	253	145				32	111	2			59			20		39		29				1	18		8		1	1		18			15	2		1	2
Michigan	347	73				11	51	5	2	4	30			9		21		125					51		74					114			98	16			5
Minnesota	114	41				5	29	7			17			4		13		48					6		42					7			5	2			1
Mississippi	113	20				3	3	14			6			3		3		48				1	37	1	9					34		3	18	13			5
Missouri	149	35				7	25	3			21		3	5		13		69					32		37					21		1	19	1			3
Montana	22	7				4	3				4			4				6					6							5			4	1			

Nebraska	86	30				10	14	5	1		20			10		10		25					9		15			1		11			4	7			
Nevada	10	2					2				2					2		5					3		2					1			1				
New Hampshire	47	18				12	3	3			10		1	7		2		1					1							18			18				
New Jersey	72	44				3	40	1			17			2		15		8				1	4		3					2		1	1				1
New Mexico	14	2					2				1					1		10					7		3					1				1			
New York	213	86				1	81		4		10			1		9		86					49		36	1				30			19	11			1
North Carolina	27	8					5	2	1		1					1		7	3			2		1	1					10	3	4		3			1
North Dakota	25	6					5	1			2					2		15					10		5					2				2			
Ohio	372	103				11	87	4	1		46			11		35		81				1	40		40		1			132		2	123	7			10
Oklahoma	141	32				1	31				14					14		60					32		28					25			23	2			10
Oregon	27	10				4	6				16			4		12		1							1												
Pennsylvania	336	132				9	90	30	3		47			4		43		70					6		64					80		3	76	1			7
Rhode Island	12	8					7	1			2					2		1					1							1			1				
South Carolina	11	4				3	1				2		1	1				2	1			1								3	1	1		1			
South Dakota	17	6					6				3					3		4					1		3					4			4				
Tennessee	49	15					12	3			5					5		17					13		3		1			7			7				5
Texas	129	46	2	32	5	7					25	3	22					24	4	14	2	4								34	19	15					
Utah	59	33				2	20	5	5	1	7			2		5		15					9		5		1			4		1	1	2			
Vermont	49	4				2		2			2			2				20					16		1	3				20			19	1			3
Virginia	37	21		7			12	2			3		2			1		5				1	1		3					8	3	4	1				
Washington	44	12					12				5			2		3		22					10		12					3			1	2			2
West Virginia	167	76				2	63	11			14			2		12		20					2	1	17					54		5	48	1			3
Wisconsin	90	34				2	31	1			14			1		13		28					6		22					14			13	1			
Wyoming	28	4				1	3				2			1		1		14					11		3					8			8				

Comparison of Table 2 with the similar table for 1926, already referred to, shows that a loss in the number of reorganized schools occurred in only two States, namely, Louisiana and New Hampshire; the total loss was negligible—six schools in the two States. The increases are decisive. In 1926 eleven States had more than 100 reorganized schools; in 1928 seventeen States are so classified. In 1926 five States had more than 200 reorganized schools; by 1928 seven had passed this mark. No State in 1926 had as many as 300 reorganized schools; four States had by 1928 exceeded this figure by a considerable margin.

The detailed classification into types of reorganized schools reveals the 3-year junior high school of grades 7–9 to be ascendant in its class, the 3-year senior high school of grades 10–12 outstripping all competitors in its group, and the 6-year high school of grades 7–12 dominant among undivided schools. These three types predominated also in their respective classes in 1926. No pronounced movement is apparent in the junior-senior schools but a tendency toward the 3–3 plan consisting of grades 7–9 and 10–12 is discernible.

Because of enrollments and their importance special interest attaches to status and trends of reorganization in larger cities. In Table 3 is presented a summary of data secured for the school year 1929–30 in one of the studies conducted as a part of the national survey of secondary education. The returns, while incomplete, cover responses from 55 cities of over 100,000 population and from 102 cities of 30,000 to 100,000 inhabitants.

TABLE 3.—*Reorganization status and reorganization plans in larger cities, 1929–30*

Population size	Number of cities in which reorganized schools enroll—						Number of cities in which development is toward—									
	No pupils	1 per cent to 50 per cent of the pupils	51 per cent to 75 per cent of the pupils	76 per cent to 90 per cent of the pupils	91 per cent to 99 per cent of the pupils	All pupils	8-4	7-4	6-6	6-3-3	6-3-3-2	6-2-4	6-4-4	5-3-3	6-2-3	6-4-2-2	7-2-3
Total	26	8	17	18	9	79	11	3	6	107	9	4	4	5	2	1	1
55 cities of 100,000 population or more	7	4	10	9	4	21	5	2	1	35	5	1	----	3	----	----	----
102 cities of 30,000 to 100,000 population	19	4	7	9	5	58	6	1	5	72	4	3	4	2	2	1	1

It is of significance to note that only 26 of the 157 cities have taken no steps looking toward reorganization, while 79 report themselves entirely on a reorganized basis. Seventeen per cent of the cities have

no reorganized schools, 50 per cent have all schools on a reorganized basis, and the remaining 33 per cent are in various stages of reorganization. In four-fifths of the cities at least one-half of the pupils are attending reorganized schools.

These same city-school superintendents were asked to indicate the type of organization toward which their respective school systems were developing. With the exception of four cities this trend was indicated as being definitely in the direction of some one form of organization. A glance at this section of Table 3 reveals how extensively the school systems of larger cities are committed to the 6–3–3 type of organization, sometimes with the addition of a junior college. Another interesting fact is that while, as stated in the preceding paragraph, 26 cities have introduced no reorganization plan, only 14 of these 26 are apparently committed to continue organization on the 8–4 or 7–4 basis.

JUNIOR COLLEGE

Just as the junior and undivided high schools represent extensions of secondary education into years formerly regarded as belonging to elementary education, so the junior college evidences the expansion of secondary education into years formerly reserved for the college.

In the majority of cases where the junior college has been introduced it has been added as a 2-year institution to an already developed 11-year or 12-year system. In some cases it has become part of an extensive reorganization plan. Among innovations may be mentioned the plans of the reorganization of secondary education into two 4-year units in Hillsboro, Tex., and in Pasadena, Compton, and Ventura, Calif.; the development of 4-year institutions representing consolidation of high-school and junior college years in Johnstown, Pa., and Stephens College, Columbia, Mo.; and the experimental plans which have been evolved for articulation of high schools and junior colleges and for economizing the time of pupils in Tulsa, Okla., Kansas City, Mo., and Joliet, Ill.

According to a directory compiled in the fall of 1930 by Doak S. Campbell, secretary of the American Association of Junior Colleges, there were 436 junior colleges in existence in the United States; 178 of these were classified as public and 258 as private.[1] The number and growth of public and private junior colleges, as well as their enrollments, are shown in Table 4, which has been compiled from studies made at various times between 1921 and 1930.

[1] The directory is published in the January, 1931, issue of the Junior College Journal, Stanford University Press.

TABLE 4.—*Growth in number and enrollments of junior colleges, 1921 to 1930*

School year and authority	Total		Public		Private	
	Colleges	Enrollment	Colleges	Enrollment	Colleges	Enrollment
1	2	3	4	5	6	7
1921–22						
Koos, Leonard V.: The junior college. Education Series, No. 5. University of Minnesota, 1924	207	[1] 16,121	70	8,439	137	7,682
1926–27						
Koos, Leonard V.: Recent growth of the junior college. School Review, April, 1928	[2] 325	[3] 35,630	136	20,145	189	15,485
1927–28						
Whitney, Frederick L.: The junior college in America. Colorado State Teachers College, 1928	382	[4] 44,372	146	24,777	236	19,595
1930–31						
Campbell, Doak S.: Directory of the junior college. Junior College Journal, January, 1931	436	[5] 74,088	178	45,021	258	29,067

[1] A number of colleges did not report enrollment.
[2] Includes 18 junior colleges beginning operation 1927–28.
[3] Enrollments for 41 colleges are not included.
[4] Enrollments were not reported for ten colleges.
[5] Enrollments for 4 public and 6 private institutions were not reported.

Due to the failure of some institutions to report enrollments, averages derived from figures in Table 4 carry conviction only for certain years. If one makes the necessary subtractions from the figures from 1926 and 1930, one arrives at an average enrollment of 125 for the earlier year and 174 for 1930. In 1930 the average enrollment was 259 for public junior colleges and 115 for private institutions. The means are, however, somewhat misleading, since a few large institutions raise the averages materially. From data gathered by Doak S. Campbell [2] during the school year 1928–29 it is apparent that one-half of the junior colleges at that time had enrollments of 85 or less. That even this small registration represents considerable increase is clear when one remembers that Leonard V. Koos [3] found the median enrollment in junior colleges, 1921–22, to be 47.

This reported increase in median size is in part due to greater care exercised in locating new junior colleges. During the past two years outside experts were called in to study the situations in Boise, Idaho,[4] and in Siskiyou County, Calif.,[5] preliminary to the establishment of

[2] Campbell, Doak S. A Critical Study of the Stated Purposes of the Junior College. George Peabody College for Teachers, 1930, p. 7.

[3] Koos, Leonard V. The Junior College. 2 vols. University of Minnesota, 1924, p. 11 of vol. 1.

[4] Dr. Leonard V. Koos, of the University of Chicago, made this study. The report was printed by the board of education, Boise, Idaho, September, 1930.

[5] Nicholas Ricciardi, Ira W. Kirby, William M. Proctor, and Walter C. Eells. Junior College Survey of Siskiyou County, Calif. Board of Supervisors of Siskiyou County, Yreka, Calif., 1929.

junior colleges. In both of these surveys anticipated enrollments as well as ability of the districts to finance the added unit were considered.

A survey recently conducted in Western Pennsylvania [6] likewise inquired carefully into the number of students that might be expected to attend. Other local studies of similar nature are known to have been made in various sections. It is apparent that accrediting standards, State laws, and surveys are influencing people to weigh such important factors as supply of pupils and ability to finance the new unit when the question of establishing a junior college is under consideration.

An important decision affecting the junior college was rendered in August, 1930, by the Supreme Court of North Carolina. This decision affirmed the right of the board of education in Buncombe County to operate a junior college as a part of the public-school system and to pay expenses of its operation from public funds. The decision brings to mind that of the famous Kalamazoo case of 1874 which settled the issue of use of public funds for high-school support.

There was begun during the biennium a national study dealing with the history, mental and scholastic rating, persistence in school, and judgments of students who graduated from junior colleges between 1926 and 1929 and then continued their education at regular colleges or universities. Registrar Wyatt W. Hale, of Birmingham-Southern College, holder of a Phi Delta Kappa fellowship, is in charge of this study, which is conducted with the cooperation of the national survey of secondary education. The study repeats in part on a national scale significant inquiries which have been conducted in the field of student personnel by Dr. Walter C. Eells,[7] of Stanford University.

PRIVATE SECONDARY EDUCATION

To the provisions for education on the secondary level already described should be added the important facilities available in private secondary schools. In 1930 reports were received by the Office of Education from 2,760 private high schools and academies having an enrollment of 309,052 pupils. Nearly three-fourths of these schools are under some type of denominational control; more than one-half of them are Roman Catholic in affiliation.[8] The number of

[6] Morris, John T. Considerations in Establishing a Junior College. Contributions to Education No. 343. Teachers College, Columbia University, 1929.

[7] See reports made before the ninth and tenth annual meetings of the American Association of Junior Colleges, as well as the California Junior College Mental-Educational Survey, published by the California State printing office, Sacramento, in 1930.

[8] For a discussion of the growth of these schools see Francis M. Crowley's article, Rapid Development of Catholic High Schools in the Past Decade, in February, 1929, issue of SCHOOL LIFE, Washington, D. C.

nonsectarian schools has fluctuated from time to time but has not materially changed during the last 25 years; the number of students registered in them has, however, increased nearly 60 per cent during this period.

Reports have appeared of results of two extensive testing programs administered in private schools during the biennium. One of these reports is entitled "The Educational Achievement and Interests of Independent School Children, 1929–30."[9] The other is included in Leonard V. Koos's book on Private and Public Secondary Education.[10]

Doctor Koos finds from the study of more than 14,000 test scores of pupils in denominational and independent schools that the pupils of denominational schools excel those of public schools slightly in mental ability, while the pupils of independent schools are distinctly superior mentally. He finds further that in achievement "typically, although not universally, they (public schools) compare favorably with all groups but the independent schools—in a few only of the measures taken do these schools (independent schools) not rank highest." In the report of the Educational Records Bureau results are analyzed of approximately 40,000 tests administered in independent schools. The same superiority of the independent-school group is noted here as in Doctor Koos's findings. It is found that as measured by intelligence tests 62 per cent of the pupils in independent schools studied are recruited from the upper fifth of a normal distribution of American children. The achievement of these pupils is high but the significant statement is made that "it is doubtful that the academic superiority of independent school pupils is as great as their intellectual superiority warrants."[11] The same implication is present in Doctor Koos's comment on his findings.

In both studies it is observed that great variation exists among schools of the same general classification and among pupils in the same school. Consequently the reader is repeatedly warned not to apply the generalizations to specific schools or to individual pupils.

THE CURRICULUM

Interest in the curriculum during the decade stimulated the production of a number of studies and yearbooks national in scope. There passes in review a series of yearbooks of the Department of Superintendence on the curriculum and on articulation. The

[9] Published by Educational Records Bureau, 437 West Fifty-ninth Street, New York City. Earlier reports for the years 1927–28 and 1928–29 have also been published by this bureau.

[10] Published by the University of Chicago Press, 1930.

[11] Quoted from the report, p. 132.

National Society for the Study of Education published one of its yearbooks on the curriculum, another on the extracurriculum, and a number on individual subjects of the curriculum. The Office of Education made studies in 1922 and 1928 of enrollments by subject in grades 9 to 12 for the United States as a whole. The Institute of Administrative Officers of Higher Institutions gave its 1929 meeting to discussion of the junior-college curriculum. In the subject fields mathematics was represented by the report of the National Committee on Mathematics Requirements [12] and foreign language by the Classical Investigation [13] and the Modern Foreign Language Study.[14] As this is written national inquiries in English [15] and in social studies [16] are in progress in addition to the curriculum studies described elsewhere in this chapter as a part of the national survey of secondary education.

Concomitantly students of the curriculum have produced a number of outstanding books in the techniques of curriculum making. Important contributions to literature in this field from Bobbitt, Charters, Harap, Hopkins, and Williams have appeared within the last 10 years.

A large number of significant curriculum studies are continuously being conducted regionally, in the several States, in cities, and in individual schools. The work of the Commission on Unit Courses and Curricula of the North Central Association; the inquiry addressed by the Associated Academic Principals and the State Department of New York State; to teachers and pupils for the purpose of discovering curriculum attitudes; the study of curriculum revision sponsored by the Michigan Schoolmasters' Club; and the publications regarding the unit assignment, issued within the past two years by the Virginia Committee for Research in Secondary Education, are cases in point. A recent study [17] of curriculum researches, covering the one year, 1929, lists 74 investigations which were considered sufficiently scientific to merit inclusion.

An important outcome of the curriculum movement has been the frequent revision of programs of study and of courses of study by States, cities, and individual schools. An inquiry sent out in connec-

[12] Reorganization of Mathematics in Secondary Education. Boston, Houghton Mifflin Co. Prof. J. W. Young, of Dartmouth College, was chairman of the committee.

[13] Report of the classical investigation. Princeton University Press. Dean Andrew F. West, of Princeton University, was president of the American Classical League while the study was in progress.

[14] Reports of the Modern Foreign Language Study. (17 vols.) New York, The Macmillan Co. Prof. Robert H. Fife, of Columbia University, was chairman of the committee.

[15] A Nation-wide Survey of English Usage. This study is sponsored by the Psychological Corporation and is made under the direction of Dr. L. J. O'Rourke, U. S. Civil Service Commission.

[16] American Historical Association. Investigation of the social studies in the schools. Prof. A. C. Krey, of the University of Minnesota, is director.

[17] Douglass, Harl R. Types and Fields of Curriculum Research in Secondary Education During 1929. School Review, November, 1930.

tion with the national survey of secondary education brought responses from approximately 250 cities and schools in which important revisions are reported to have been made within the last five years.

The nature of changes in the program of studies has been set forth in studies by Glass,[18] Counts,[19] Bradley, Lide, and numerous other investigators whose studies have not been so extensive as those named. As indicated in the footnotes, Glass's study of junior high school curriculums in 14 cities and Counts's study of high school curriculums in 15 cities have been published. Dr. Raymond J. Bradley's study, as yet not in print, involves programs offered in more than 400 schools distributed throughout the Nation. One of Dr. Edwin S. Lide's studies compares for 60 junior high schools the present programs of studies with those offered in these same schools before 1920; this and a number of other studies referred to in another section of this chapter will be published as parts of the report of the national survey of secondary education.

In the course of study revisions there is apparent a disposition to secure the advantage of expert judgment without sacrificing intimate contact with the classroom. In an increasing number of cases the organization for revision is so set up as to give responsibilities to both teachers and curriculum specialists. Recent revisions of State courses which emphasize this principle are those now in progress in Connecticut, Florida, Idaho, Indiana, Iowa, Minnesota, New Mexico, New York, Oklahoma, and South Dakota. In these cases the central State offices either carry the responsibility for direction or delegate that function but provide always for cooperation by teacher committees which prepare, review, or criticize the courses.

City schools carry out this policy in diverse ways. Denver and Los Angeles, pioneers in extensive curriculum revision, spread participation to a considerable number of teachers—Denver by rotating membership on subject committees and Los Angeles through having every school represented on each of the subject-field committees which pass upon the work of those preparing the courses. The Vocational School of Bayonne, N. J., and the high schools in Saginaw, Mich., have organized plans for securing reactions to their courses from agencies outside the school. Tulsa, Okla., follows the principle of paying part of the expenses of attendance by selected teachers at certain specified summer schools where course of study syllabi are prepared under the direction of specialists in the curriculum. In Bessemer, Ala., a contract has been entered into with the

[18] Glass, James M. Curriculum Practices in the Junior High School and Grades 5 and 6. University of Chicago. Supplementary Educational Monograph No. 25.

[19] Counts, George S. The Senior High School Curriculum. University of Chicago. Supplementary Educational Monograph No. 29.

University of Alabama through which the department of education cooperates with the city teaching staff for a 3-year period in revising the local courses of study. It is obvious that the methods employed in these cases vary greatly, but that the ultimate object in all of them is to have the resulting courses of study embody the most advanced theories of the curriculum and the most practical judgments as to what may be attained under public-school conditions.

ARTICULATION

The Department of Superintendence has been active in its recognition of the problem of articulation as evidenced by devoting its yearbooks of 1929 and 1931 to the subject. The 1929 yearbook treated articulation on all levels, having parts assigned to the elementary school, junior high school through junior college, professional and higher schools, and adult education. The forthcoming 1931 yearbook deals with five unifying factors in American education.

Various accrediting bodies have evinced an abiding interest in the questions relating to articulation of secondary schools and colleges. The New England College Entrance Certificate Board has for years studied the success of high-school graduates in college; in fact, the entry and continuance of a high school upon its certificate list are dependent upon the college success of the graduates of the high school. The Southern Association of Colleges and Secondary Schools has since 1918 produced a series of 12 comprehensive reports on marks earned as college freshmen by the graduates of Southern Association high schools. The North Central Association of Colleges and Secondary Schools made elaborate studies of the success in college of high-school graduates of 1924 and 1928 and is encouraging higher institutions to submit regularly reports of marks of college freshmen to the association and to the secondary schools from which the students were graduated. Beginning in 1928 the Association of Colleges and Secondary Schools of the Middle States and Maryland has been gathering data on the success in college of students who were graduated from member secondary schools; approximately 80 colleges and universities are cooperating with the association in this project.

The studies made by regional associations generally have followed the student through the first semester or the first year of his college course. It is interesting to note that in Pennsylvania there is in progress under the direction of the Carnegie Foundation for the Advancement of Teaching a study which aims to follow students through their complete high-school and college careers. One project in this study has for its purpose to ascertain and record over a period of six years the capacities, achievements, interests, and activities of

more than 12,000 pupils in 18 school systems who entered the seventh grade in September, 1928, and will normally be graduated from senior high school in June, 1934. In another project more than 26,000 Pennsylvania high-school seniors were given achievement tests in the spring of 1928. In the fall of 1928 the high schools from which these pupils were graduated supplied a statement regarding the location and occupation of these 26,000 tested pupils. The careers of those who entered college will be followed until they leave college or are graduated in 1933; it appears that no provision is made for following the careers of those who do not enter college.

A movement was started at the 1930 meeting of the Association of Colleges and Secondary Schools of the Middle States and Maryland for a comprehensive study of college entrance requirements and selective processes. It is contemplated to secure the cooperation of other regional associations to the end that there may be appointed a commission which will give the problem of college entrance the careful and thorough scrutiny which it needs.

These studies and movements indicate a more serious intention than has ever before been evident of considering the question of articulation cooperatively. The fundamental attitude is that the college should not impose its standards upon the junior college or the high school; that the senior high school should not attempt to dominate the junior high school or the elementary school; but that there should be integration of the work and a mutual understanding of the problems. The schools are separate units, but the pupil who pursues his way through them is one; and since the schools are there for his benefit, it is proper that they should serve his purposes.

NATIONAL SURVEY OF SECONDARY EDUCATION

In 1929 work was begun on the National survey of secondary education. On July 1 of that year $50,000, the first installment of a total authorized amount of $225,000, became available. An expenditure of $100,000 for the second year and $75,000 for the third year was contemplated.

The Commissioner of Education as director of all major educational surveys appointed Leonard V. Koos, of the University of Chicago, associate director of the survey of secondary education. The writer serves as coordinator. A board of consultants of 9 members, a professional advisory committee of 30 members, and a general advisory committee of 56 members complete the administrative organization of the survey. The consultants meet upon call to consider plans and to make recommendations regarding the general policies to be followed in the survey. The professional advisory committee is representative of different sections of the country and of a wide

variety of interests in secondary education. It is the function of this committee to suggest studies to be undertaken, to advise on policies, and to interpret the survey and secure cooperation for it while it is in progress. The general advisory committee is composed of persons interested in education but not actively engaged in educational work. Every State in the Union is represented in its membership. The committee has responsibility for advising upon important procedures while they are yet provisional, for reacting to the report while it is still in tentative form, and for interpreting the survey to the taxpayers and the general public after it is completed.

Obviously not all problems of secondary education could be studied in the 3-year period and with the amount of money available. After careful consideration the following aspects of secondary education were chosen for investigation: (1) The organization of schools and districts; (2) the secondary-school population and related problems; (3) administrative and supervisory problems, inclusive of administrative and supervisory personnel and activities; (4) the curriculum and the extra curriculum.

These major problems have been broken up into 24 projects for study. The titles given to these projects, the specialists [20] engaged in each, and a brief description of each study are given in the paragraphs which follow.

Project A. Secondary school reorganization (*Francis T. Spaulding, Harvard University; O. I. Frederick*).—In this study effort is made to discover the extent of reorganization; the prevailing characteristics of junior high school, senior high school, and regular high-school education as offered in existing schools; circumstances favoring or opposing reorganization plans; outstanding movements in junior high school education; outstanding plans in individual reorganized and unreorganized high schools; feasibility of reorganization in rural and small urban districts. Nearly 1,000 schools have been canvassed. A careful study is being made of those schools that appear to be outstanding because of their organization.

Project B. Horizontal organization of secondary education and the secondary school population (*Grayson N. Kefauver, Columbia University; Victor H. Noll; C. Elwood Drake*).—This twofold investigation concerns itself with the prevalence and distribution of different types of provisions for secondary education, specialized and

[20] Those specialists who are regularly employed by agencies other than the Office of Education may be identified by the fact that the agency regularly employing them is named; these specialists give part time to the survey. The names of specialists on the regular staff of the Office of Education assigned to the survey for part time are marked by asterisks. Those whose names are followed by neither of the distinguishing marks mentioned above are employed by the Office of Education for full-time work with the survey, but only for the period of the survey. The person whose name appears first with each project is the directing specialist of that project.

unspecialized; programs offered in different types of secondary schools; effectiveness of specialized training offered under different types of organization; considerations other than outcomes of teaching affecting the horizontal organization of secondary education; special types of education on the secondary-school level; occupations that may be entered from the secondary-school level of training; provisions for guidance under different types of organization of secondary schools; and articulation of secondary schools with the community developed under different types of organization. The approach is partly through general study of practice and partly through intensive study in 15 cities representative of different types of secondary education in various sections of the country.

Project C. School district organization for the administration and supervision of secondary education (*Fred Engelhardt, University of Minnesota; William H. Zeigel*).—This study inquires into types of school districts under which secondary education is administered; the extent to which these types of district organization bring secondary schools within reach of the potential secondary-school population; analysis of laws which control creation, consolidation, or abandonment of school districts; relationship of school district organization to methods of support of secondary schools; study of types of district organization which are distinctive in that they make possible an efficient and economical secondary-school program. The problem is approached through materials gathered by the Office of Education for the biennial survey of education and through forms sent to the State departments of education and to individual schools and school systems. The data thus obtained are analyzed and from the returns certain schools and school systems are selected for intensive study through visitation.

Project D. Special problems in reorganization (*William M. Proctor, Stanford University; Scovel S. Mayo, Stanford University*).—California was selected as the place for this study because of the problems present in establishing junior high schools and junior colleges in union high-school districts of that State. Data were gathered for six counties so selected as to represent the various difficulties encountered in reorganization. In each county study was made of the present educational situation and of possibilities of achieving more extensive areas for administrative purposes.

Project E. The characteristics of small high schools (*W. H. Gaumnitz;* P. Roy Brammell*).—Five groups of schools have been chosen for this study: The first group includes schools having fewer than 30 pupils registered; the second, 50 to 75 pupils; the third, 100 to 150; the fourth, 200 to 300; and the fifth, 400 to 600 pupils. Re-

* On regular staff of the Office of Education; gives part of time to the survey.

turns are being gathered from a representative sampling consisting of 100 schools in each of these groups. As a result of the study, it is planned to present a picture of the actual situation found in the schools of these various-size groups with respect to development and status; principalship; provisions for supervision other than by principal; teaching and staff problems; student problems; curriculum and extracurriculum provisions; housing and equipment; other evidences of the extent and quality of education provided.

Project F. Study of selected secondary schools in smaller communities and rural areas (*Emery N. Ferriss, Cornell University; P. Roy Brammell*).—Against the background presented by the study which has just been described it is intended that this study shall throw into relief the practices in outstanding small schools. The investigation in these selected schools centers around the same characteristics mentioned under project E, but those features which mark the school out from the regular type of small school are sought and noted. A total of 200 schools are cooperating in the study.

Project G. Guidance (*William C. Reavis, the University of Chicago; George E. Van Dyke, the University of Chicago*).—Case studies of guidance programs are being made in six cities selected because of their emphasis upon guidance. The cases studied present a wide practice under varying conditions, such as emphasis upon placement, group guidance of the individual pupil, guidance in rural areas, extensive programs in large city schools, and the like.

Project H. Administrative and supervisory staff (*Fred Englehardt, University of Minnesota; William H. Zeigel*).—This project is concerned with conditions surrounding administration and supervision by State departments, accrediting bodies, local boards of education, district and county superintendents, central offices of city-school systems, principals and their assistants; duties, functions, activities, and relationships of personnel in staff positions; types of organization to facilitate effective management, to relieve professional staff members of clerical work and routine duties, and to coordinate the work of various administrative and supervisory officers. Inquiries relating to this project have been directed to superintendents of schools, to principals of high schools, and to staff members in individual schools, city systems, and State departments. Intensive studies are made of schools and school systems which are representative of the various patterns of staff organization or which present the most unique practices.

Project I. Practices in the selection and appointment of teachers (*W. S. Deffenbaugh;* William H. Zeigel*).—Three parallel check lists were circulated in the effort to ascertain practices in the selection and appointment of teachers. One was addressed to city superin-

* On regular staff of the Office of Education; gives part of time to the survey.

tendents, another to independently administered high schools (township and county high schools, for example), and the third to county superintendents in States having county unit systems. These check lists inquired into agencies and procedures utilized for making contacts with candidates for teaching positions, methods of collecting information regarding candidates, regulations governing selection, types of appointments made, methods and procedures followed in selection and appointment, and methods of retaining teachers of high quality. Intensive study is made of procedures followed in schools which are unusual or innovating in the methods employed for selection and appointment of teachers.

Project J. Provisions for individual differences; marks and marking systems; plans for promotion of pupils (*Roy O. Billett*).—The first approach to schools in the section of the survey dealing with individual differences was made through a check list in which were enumerated all the important provisions reported in the literature examined. There were 28 of these provisions. The principal was asked to check those utilized in his school and to check twice any provision which he felt was used with unusual success. Fourteen different kinds of follow-up forms were devised and sent to schools which had double-checked items. In connection with 7 of the 13 forms referred to, a study was made of marking systems and promotion plans followed in these schools. In addition, a special form on marking and promotion was circulated to an extensive mailing list of schools. On the basis of information secured a carefully developed program for visiting schools has been developed.

Project K. School publicity (*Belmont Farley, National Education Association*).—This project involves the publicity policies of school systems and the methods employed for interpreting the schools to the pupils, to teachers and school employees, and to patrons and the general public. Emphasis is placed upon discovering, not only the means of publicity but also its character and the control exercised over it by the school. These features are studied in a general way in approximately 500 schools and a special study is made of publicity practices and results in four carefully selected individual schools.

Project L. The curriculum. Part I. Curriculum making and curriculum revision. (*A. K. Loomis, Denver Public Schools; E. S. Lide.*)—Data have been gathered on plans for curriculum making and curriculum revision followed in State school systems, county school systems, city school systems, and individual secondary schools. Studies are included of influences of central agencies on local revisions. Major phases of three analyses of programs of studies are being repeated; the three investigations are James M. Glass's study of junior high school curricula, George S. Counts's investigation of the senior high school curriculum, and Raymond J.

Bradley's comprehensive study of curriculum offerings. Other studies which involve analysis of the programs of studies followed at different periods in the same schools are (1) a comparison of programs followed before reorganization and after reorganization; (2) changes which occurred in recent revisions (comparing programs before revision with those followed after revision); and (3) comparison of programs of studies of junior high schools in existence 10 years ago with programs of these same schools today. A comparison is made of programs in reorganized and unreorganized schools of the present day. Still another project in progress deals with the relationships of programs followed by individual students in high school and college.

Part II. Subject-matter fields. (*Dora V. Smith, English, University of Minnesota; William G. Kimmel, social studies, American Historical Association Commission on Investigation of the Social Studies; E. S. Lide, mathematics; Wilbur L. Beauchamp, science, the University of Chicago; Helen M. Eddy, foreign languages, State University of Iowa; Anne E. Pierce, music, State University of Iowa; Robert S. Hilpert, art, University of Minnesota; P. Roy Brammell, physical education*).—The work in subject-matter fields includes analysis of courses of study and comprehensive plans for visiting schools in which work of a noteworthy character is found. Practical arts fields (industrial arts, home economics, agriculture, and commercial work) are studied in connection with Project B.

Project M. Extracurriculum activities and nonathletic interscholastic contests (*William C. Reavis, the University of Chicago; George E. Van Dyke, the University of Chicago*).—The principal emphases in this project are upon (1) finding out what is actually known regarding the values of extracurriculum activities in secondary-school programs; (2) finding out what has been done to guide and regulate the participation of pupils in extracurriculum activities; (3) surveying and evaluating programs of extracurriculum activities of reputed worth in different types of secondary schools; (4) studying the historical development of extracurriculum activities in several high schools which have adequate records for the purpose; and (5) studying the effects of participation in extracurriculum activities on the subsequent character and activities of graduates. Check lists are sent to schools, to sponsors of activities, and to graduates who occupied positions of leadership in activities while in high school. Selected schools are visited.

Project N. Athletics in high school and other activities involving interscholastic contests (*P. Roy Brammell*).—In this project it is the purpose to discover and study noteworthy plans for administration and supervision of high-school athletic contests. Principal phases included are the financing of contests, relation of athletics to the

physical-education and health programs, pupil participation, values to pupils, and practices designed to solve the numerous problems related to athletics in high schools. Intramural as well as interscholastic contests are given attention. Approximately 700 schools are receiving the inquiry form. Many of the schools are visited in order that better understanding may be gained regarding their practices.

Project O. Articulation of high schools and colleges (*P. Roy Brammell*).—All colleges and universities having liberal arts departments have been approached in an effort not only to learn the status of college entrance requirements but also to identify practices in colleges and universities which are departing from traditional standards in admitting students, to discover innovating methods used for adjusting freshmen to the college situation, and to study methods used by higher institutions for the improvement of articulation of high school and college education. Especially promising readjustments are given special attention.

Project P. Physical education and health supervision (*P. Roy Brammell*).—Approximately 800 schools whose programs of physical education and health were reported as being outstanding have been invited to participate in this study. The practices of these schools are studied through check lists and visiting. Effort is directed especially toward finding schools in which the program of competitive athletics is made to conform to the generally accepted principles of physical education and health through control and supervision by directors in these fields.

Project Q. Legal and other regulatory provisions affecting secondary schools (*Ward W. Keesecker**; *Franklin C. Sewell*).—The units legally authorized to provide secondary schools, the powers and functions vested in the different units, the types of schools which may legally be established, and the powers and functions of school officials are among the features investigated in this project. It is of especial significance to note that this investigation is not limited to statutory provisions, but is concerned with regulations, standards, rulings, and the like which are adopted by agencies such as State boards of education, university regents, and the commissions of regional accrediting associations.

Project R. Research initiated by the schools (*William H. Zeigel*).—Significant research work conducted in the schools, whether initiated by State or city authorities on an extensive basis, by a principal for his school, or by a teacher in her classroom, come within the province of this project. Special attention is given to those situations in which a director of research is employed. Personnel, nature of activities, and conditions under which the work is carried

* On regular staff of the Office of Education; gives part of time to the survey.

forward are the principal items of inquiry. Schools and systems which appear to have unusual programs of research are visited.

Project S. Supervision of instruction (*Roy O. Billett*).—About 130 high schools distributed throughout the Nation have been reported to the survey staff as having outstanding procedures in supervision. Attempt is made to learn what the supervisory programs of these schools consist of and what the supervisory practices are. Supervision will be studied more intensively by visiting a selected group of these schools.

Project T. Schedule making and registration (*B. Lamar Johnson*).—Inquiry is made into conditions of schedule making, characteristics of the schedule, and practices relating to preliminary and final registration in 300 selected schools. Innovating practices are followed up by visits for the purpose of noting unusual characteristics of the schedule, for securing data on the amount of time which pupils spend in classwork and in study, and for making detailed description of registration and scheduling procedures.

Project U. Library service (*B. Lamar Johnson*).—Inquiry forms relating to the secondary-school library were sent to more than 600 schools recommended by State school officials, city superintendents, library commissions, and directors of library schools as having outstanding library service. In approximately 25 libraries selected for visiting data have been gathered on features of school-library service such as ways of adapting the library to newer methods of teaching, cooperation of the library staff with teachers in promoting use of library facilities, activities of teachers in encouraging or discouraging the use of the library and in facilitating or obstructing the work of the library staff, devices helpful in encouraging pupils to do recreational reading, and use made of the library by pupils.

Project V. Special reorganizations (*Leonard V. Koos, University of Chicago*).—Work on this project awaits the outcome of other studies, especially of projects A, C, D, and O, which obviously are closely related to it. It is contemplated that innovational reorganizations such as the 6–4–4 plan, the completion of grades 1–14 in less than 14 years, and the like will be treated separately unless descriptions logically find places in the reports of other projects.

Project W. Secondary education for Negroes (*Ambrose Caliver* *).—This project is unique in this survey in that it stresses status. This change of emphasis finds justification in that the facts regarding Negro education have never been assembled on a national scale. The general survey emphasis upon outstanding and noteworthy practices is, however, observed as far as possible. A general check list inquiring into organization, school population, administration and

* On regular staff of the Office of Education; gives part of time to the survey.

supervision, curriculum and extracurriculum, teachers and teaching problems, housing and equipment has been sent to 1,400 Negro schools. This check list has been carefully correlated with other forms used in the survey, especially with the forms intended for small high schools. Negro high schools which appear to be outstanding will be visited.

Project X. Growth and trends in public junior colleges (O. I. Frederick).—All junior colleges have been approached for information regarding enrollment, source of financial support, administrative control, and relation to high schools. An almost complete count of responses has been received. The returns are utilized in such a way as to make the findings comparable with earlier studies of the junior college.

In only 2 of the 24 projects, those designated by letters E and W, is the principal emphasis placed upon general status. In projects A, B, C, and I some attention is given to status, but stress is placed upon noteworthy procedures. In all other projects the inquiries are directed principally toward studying the constructive, the unusual, and the innovating—not the average.

A principal first method of approach utilized is the inquiry form. Three of these, dealing with the survey as a whole, were circulated during the spring of 1930 to State departments of public instruction, to city school systems, and to an extensive sampling of secondary schools. From returns on the inquiry forms mentioned and from numerous other sources, data and judgments were gathered enabling the specialists to develop lists of schools with significant practices in each of the various fields of investigation. During the school year 1930–31 these schools received other inquiry forms designed to ascertain the character of these practices more in detail. All told, 49 such inquiry forms having an aggregate total of more than 700 pages were circulated. Care was exercised that no one school should receive a disproportionate number of these forms.

Another technique of investigation employed uniformly in all projects is that of digesting materials already available. A careful examination of reports whether published or in manuscript form of all studies bearing upon the projects has been made preliminary to sending out any inquiry.

A third principal activity common to all projects is that of visiting schools. The purpose of the visit is to give the specialist opportunity to secure information which it would be impossible to obtain through correspondence, to correct and supplement such information as has been secured, and to make possible concrete and clear-cut description of the practices if this appears advisable.

CONCLUSION

Dean William F. Russell, of Teachers College, Columbia University, in his annual report submitted in June, 1930, gave special attention to the problems of secondary education. After reviewing recent statements made by Sir Michael Sadler, Dr. George S. Counts, and Professors Paul Monroe and Thomas H. Briggs, he sums up the problems of secondary education in the following words:

> We must educate all the people and at the same time provide an élite. We must devise an education that serves the State and that overcrowds no special group of vocations or professions. We must fit our pupils to live in the industrial age and vaccinate them against the diseases of the machine.

The solution of problems such as those mentioned by Dean Russell can come only gradually. Furthermore, solution is a continuous process, since in our changing world problems will not stay solved. New ones are continually appearing and those segregated for study frequently have a provoking way of changing their character before the solution is ready.

The tendency in modern education is to rely upon scientific study for solutions. Certain it is that the statements of science are more precise than the pronouncements of philosophy. Few will contend that philosophy of education is unnecessary. Science without an underlying philosophy would be futile, but scarcely more idle than an opinionated philosophy which would ignore scientific investigation. The fact that educational leaders recognize the value of scientific check on educational theories provides the greatest assurance that the disturbing problems of secondary education are in process of solution.

CHAPTER IV

INDUSTRIAL EDUCATION

By Maris M. Proffitt

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Contents.—Progress in industrial education—The effect of unemployment—Plans of administrative organization—Industrial work in small schools—Industrial arts—Entrance requirements to industrial courses—Classes for the retarded—Four-year courses—Aviation—Production jobs—Guidance—Teacher training—Summary and conclusion

PROGRESS IN INDUSTRIAL EDUCATION

Progress in industrial education during the past biennium was marked by a large increase in the number of different occupations included in the programs of training, by an increased total enrollment in industrial courses, and, in most instances, in each of the different types of industrial schools and classes, by increased expenditures, by an increase in the number of schools offering industrial courses, by improved housing facilities, by inclusion in training programs of more occupations of a highly specialized and semiskilled type, by the further development of local cooperative and advisory committees for specific trades to assist local schools in the organization of courses, and by a more critical attitude toward plans for the training of industrial teachers.

A number of factors have operated to bring about an increased spread of industrial training to include a greater number of occupations. Among these are:

(1) The recognition of responsibility on the part of public schools for providing training that will have value for employment in highly specialized and semiskilled jobs, for example, manicuring, pressing and dyeing, and certain machine operations. In the early development of industrial training the trades included were limited to those of a character that necessitated comparatively long periods of training, the mastery of numerous highly skilled operations and a comparatively large amount of technical knowledge. Outstanding examples of this are the general machine-shop course and the general course offered in electricity. The past two years have witnessed a growing inclination on the part of local systems not to limit, as pre-

viously, training opportunities to a few comprehensive types of trades but to equalize more nearly provisions for industrial education by including some occupational courses for which training can be effectively given in a comparatively short time and in which large numbers will find employment.

(2) The recognition of the continued specialization in industrial work resulting in more types of jobs, many of which require only a limited variety of skills for their performance.

(3) Increased technological unemployment resulting in a demand for training that will qualify for employment in new types of jobs developing in industry.

(4) The need for short-unit courses of a trade-extension type in various trades for the purpose of upgrading workers in their jobs or for their promotion in the trade field in which they are employed.

(5) An increased knowledge of the types of occupations for which it is feasible and advisable to attempt training under public-school supervision and control. The rapidly accumulating information on this subject is coming largely from three sources: (*a*) Definitely planned studies for the occupational analysis of various trade and industrial fields, usually made by local school officials or National or State agencies in cooperation with such officials. A considerable number of such studies have recently been made. At the present time the State Department of Education of Pennsylvania is planning to carry on studies in a number of occupations heretofore not commonly included in programs of training, for the purpose of determining the feasibility of training, the content of the specific course, the length of training, and efficient methods of instruction. It is intended to make, first, a preliminary study of each occupation in cooperation with representatives of employees and employers for the purpose of developing a tentative program of training and then to try out the program experimentally with a small training group, thus refining and standardizing it for general use. One of the studies to be included is a janitorial course to be tried out with a selected group of school janitors. (*b*) Reports of advisory committees from industry working with the local schools in the development of their industrial programs. For example, in Wisconsin there are in many cities advisory committees working with State and local boards of vocational education for the development of trade courses of an efficient type to meet the needs of the industries. (*c*) Plant foremanship conferences conducted as a part of the local industrial-education program. Information developed in these discussion groups frequently results in valuable suggestions as to occupations for which training is needed.

Reports on the growth of industrial programs for the country as a whole show a substantial increase in both enrollments and number of classes maintained; reports from different sections of the country, however, vary to some extent with respect to these items. The increase in enrollments in day industrial classes was at a normal rate. In most places evening work showed a comparatively large increase. Available information on part-time cooperative classes indicates an increase in their rate of growth. The growth in general continuation classes was comparatively limited. This is a natural result of the labor situation, which makes it difficult for young persons to obtain part-time employment. Significant statements taken from reports of a few States will give some indications as to the situation in industrial education.

A report from Massachusetts states that the day vocational schools continue to increase both with respect to enrollments and number of courses offered. The total enrollment for 1929–30 increased 15.9 per cent in the day schools. The number of graduates for the same year represents an increase of 14.3 per cent over the previous year. A considerable number of schools in this State can not accommodate all the day students who wish to attend. Waiting lists have been established in most schools. For example, the Worcester Boys' Trade School has a waiting list of approximately 300, the Springfield Trade School has a list of 200. The report further says that if additional accommodations could be provided the enrollment in day schools would increase rapidly. The attendance in evening industrial schools reflected somewhat the industrial conditions. In some centers attendance was very poor; in the majority, the attendance was very good.

A report from Iowa states that the year 1929–30 was, in several respects, the most successful that the State has had in trade and industrial education. One hundred and ninety classes in trade and industrial subjects were in operation with an enrollment of 4,100. Evening classes were organized in 22 cities. In some, classes were held in industrial plants. In spite of the fact that building operations were below normal there was a healthy growth in vocational trade and industrial evening schools in the State. The enrollment in evening courses represents an attempt on the part of the workers to prepare themselves for advancement.

Oregon reports increased enrollment in all trade and industrial classes, particularly in the evening classes. The evening classes enrolled 1,240 against 546 enrolled in part-time courses and 187 in day classes. Rhode Island reports building up strong evening classes in short-unit courses, growth of apprenticeship work, and the improvement of the teacher-training program.

In Ohio material progress in all kinds of industrial classes was made for the year ending June, 1930. The increase in enrollments in trade and industrial courses amounted to 17 per cent for the year. A total of 23,680 persons was enrolled in industrial classes and a grand total of almost $800,000 was spent on all types of industrial training. Training of employees in industry was an outstanding part of the Ohio program. These reports indicate the tendency toward short specific types of courses for training individuals for employment.

Another type of course which showed quite a large growth during the past two years is the foremanship course, offered for the purpose of up-grading plant foremen in the duties and responsibilities of their jobs. In Wisconsin this type of course received special attention. Itinerant instructors in foremanship training were employed for different sections of the State and conducted classes in different cities. Their work was organized in circuits of cities, five cities to a circuit. Each itinerant instructor held classes in one circuit spending one day a week in the five cities of the circuit. At the end of 13 weeks or the completion of the course he moved into another circuit of five cities, and so on throughout the year. In the summer time these persons worked in conjunction with the teacher-training staff of the State board of vocational education for the purpose of conducting classes for the training of foreman leaders. In Wisconsin a number of cities employed a joint coordinator to study the need of adult workers for continued training and to assist local boards and State boards in working out a program to meet their needs. In New Jersey the work of foreman training also showed a healthy growth. The interest of industrial executives is shifting to some extent, according to a report from the State department of education, from the problem of men and machines to human relations. In connection with the foreman training a series of conferences were held for industrial executives, conducted by a psychiatrist employed by the vocational division of the State department of education, dealing with problems of mental hygiene. The effect of these conferences upon the morale of various workers was noticeable. New Jersey has been outstanding in the progress it has made in developing new types of courses to meet new needs in industrial work. During the past year the Girls' Vocational and Continuation School at Newark organized a course of training for girls who wish to become dental assistants. A new building to house this school was recently erected at a cost of $1,000,000. It was built to accommodate approximately 1,000 pupils.

In New Jersey increased attention was given to the layout of shops and selection of equipment. It is now a well-established practice, though not a requirement, for architects when designing a new building to consult the State department of education before proceeding

with the design and location of shops. The State department is also able to influence architects and boards of education as to the amount of space as well as the location needed for industrial shops. This cooperative relation has developed rapidly during the past two years.

Pennsylvania reports a large and varied program in industrial courses. This State has an especially large program in part-time cooperative work on a 2-week basis. Industrial-arts work for the junior high school grades is the usual practice. The number of schools having the general shop organization is increasing. Plans are in process for raising the educational qualifications of industrial-arts teachers. Connecticut reports a large increase in the number of students taking machine courses and a decrease in the number taking carpentry and building courses. There was a large increase in part-time trade-extension classes in that State. Delaware conducted trade and industrial courses in part-time and evening classes only. According to a report from the department of education this State is confronted with the problem of providing retraining for persons who have been thrown out of employment because of industrial changes. In Maryland substantial progress was made in extending the vocational-industrial program in the city of Baltimore. Industrial-arts work was extended in the smaller communities and the programs improved. There was a strong increase in the tendency to organize the general shop in the smaller schools. Texas reports the greatest advance in recent years in industrial education. Foremanship work was greatly expanded. There was a considerable increase in the number of schools meeting the requirements of the State department for industrial-arts courses. Illinois reports no noticeable changes in the industrial-education program except the improvement of teaching.

There is some variation in the development in continuation-school work. Some places report large increases, others decreases, in the continuation programs. The State of Utah uses its funds for vocational education largely in developing general continuation programs. That State is making a special effort to include in its education program all of its school population. Recently an attempt was made to account for all boys and girls from 6 to 18 years old during every month of the year. The older group, who are permitted to enter employment, must either be employed or in attendance at school. For the year ending June, 1930, approximately 95 per cent of the total school population were accounted for in terms of this program. Inasmuch as there is considerable seasonal employment in Utah, the demand for dull-season instruction through part-time continuation classes was large and made it necessary to provide considerable funds for coordination and instruction.

Michigan reports a growing apprenticeship program in spite of the unemployment situation. In 1929–30 the apprentice classes in Detroit enrolled 759, of whom 182 were on a part-time cooperative basis. Numerous other cities in the State conducted apprenticeship courses. In most places apprentices attend school four hours each week, carrying work in related subjects. At Detroit the new Wilbur Wright Cooperative High School was erected. In Texas the general part-time program was greatly enlarged by its adoption in a large number of cities and the inclusion of more subjects of instruction. Information from Oregon shows that the cooperative type of training is more satisfactory than any other, due largely to the small size of school communities which would make shop work in the schools expensive. Portland has developed an apprentice school. This State reports a need for providing training for waitresses, cleaners and dyers, and laundry workers.

In Wisconsin part-time schools are officially classed as vocational schools. The part-time schools are under the joint administration of the State board of vocational education and the local board of vocational education. Enrollments in these schools are large. The part-time vocational school in Milwaukee is one of the largest vocational schools in the United States. Excellent apprenticeship training is carried on at this school. A study of the apprentices is under way which will yield valuable information as to the character of this type of pupil and which will be helpful in the organization of apprenticeship courses.

In Iowa the enrollment in part-time general continuation classes was smaller than usual, indicating that the full-time schools in this agricultural State are holding the majority of pupils up to the age of 16. The schools in Iowa are also returning many of their part-time pupils to the full-time day classes for the reason that these pupils are now in competition with an ever-increasing supply of high-school graduates. The child labor laws are acting as a deterrent to the employment of young persons of school age. Connecticut reports a large increase in part-time trade extension classes.

Massachusetts reports an increase in part-time school enrollment. The part-time work is organized under favorable conditions; in some places the shop work is given in the factory under plant foremen, and the supplementary instruction is offered in the trade school. Virginia reports an interesting and successful piece of work in connection with the ship-building industry at Newport News. During 1929–30 instruction was given to 176 apprentices, six hours per week, in mathematics, physics, English, and economics. In addition to this number 1,228 workers in the shipyards in 19 trades received instruction. Twenty-five full-time instructors were employed in the shipyards at a total cost of $61,714.98.

During the past year there were enrolled in the continuation schools in 108 school districts of Pennsylvania 46,018 pupils. A report on a follow-up study of part-time cooperative pupils states that 80 per cent of these continued in the same line of employment after the completion of the part-time cooperative course. A report from the State department of education says that the earnings of boys and girls between the ages of 14 and 16 who are required to attend continuation school averaged, when employed, $8.56 per week, and that during the year 1929–30 the continuation-school pupils of the State earned over $11,000,000. A report from New York State shows that the earnings of this class of pupils amounted to $48,000,000.

During the biennium California enacted a new continuation school law, which permits schools to make a better adaptation of the continuation-school program to meet local needs. It specifically adopts the term "continuation education" to designate the education provided for employed minors; it provides a proposal for a program of guidance, placement, and follow-up for all minors in each high-school district; it designates the time between 8 a. m. and 5 p. m. as the hours of continuation classes; it grants authority to the State department of education to prescribe standards and regulations relative to administration, instruction, and reimbursement for continuation classes; it permits instruction to be offered at the place of employment only when given by a duly certified instructor; and it requires that unemployed minors attend school three hours per day during the period of unemployment.

THE EFFECT OF UNEMPLOYMENT

The question of the effect of the unemployment situation on school programs has been raised frequently during the past two years. School administrators are especially interested in two phases of the question: One the effect which unemployment has on school enrollments, the other the effect it has on the types of classes and courses for which demand may be made for inclusion in the public-school program of training. While there has been no comprehensive study undertaken of these problems, some general information bearing upon the question of the effect of unemployment on education programs is available. Data and other forms of information collected from various sources seem to warrant the following implications:

1. Unemployment is a factor in increasing enrollment in full-time classes in the upper school years. This is largely due to two reasons: (*a*) To the legal regulations in many States which provide that youth between certain ages must be in school all day if not employed. In times when labor is in demand many pupils take

advantage of the provision frequently found in part-time laws permitting them to secure employment on a part-time basis and to attend school for only a limited number of hours per week. With a large amount of unemployment existing the tendency in industry is to replace the untrained part-time group with experienced individuals who can work on a full-time schedule when desired. When pupils coming within the prescribed age limits of the law are dropped from employment they are required to attend school full time. There is, therefore, a shift from enrollment in part-time to enrollment in the full-time classes. This situation does not affect the girls as much as it does the boys, because in some States girls are technically employed when working at home for their mothers. (*b*) To voluntary attendance upon full-time classes by youth beyond compulsory school attendance age, but who find it difficult to obtain or retain positions on account of the unemployment situation.

The enrollment in all-day classes receiving Federal aid under the national vocational law increased 0.22 per cent during the year 1929. The increase for the year 1930 was 13.7 per cent. The Office of Education has compiled, for a few cities, enrollments in full-time vocational schools. The data show that for the 2-year period, 1928–1930, enrollments in full-time vocational schools increased in New York City, Philadelphia, Baltimore, Pittsburgh, Cincinnati, and Portland, but decreased in Minneapolis.

2. Available statistics indicate that enrollment in the vocational evening schools in many localities is increasing. Unemployment is bringing about strong competition for jobs. Workers realize that, in general, jobs go to those who are best qualified, hence they attempt to increase their qualifications by attendance on vocational evening classes. Derived percentages from enrollments in evening classes receiving Federal aid under the national vocational act show an increase of 9.6 per cent for the year 1929, and an increase of 16.0 per cent for 1930.

Reports to the Office of Education show that for the 2-year period ending June, 1930, the increase or decrease in total enrollment for all types of evening classes varied greatly with different cities. For example, the total evening enrollments decreased by 19 per cent in New York City; decreased 6 per cent in Chicago; decreased 30 per cent in Philadelphia; increased 110 per cent in Detroit; decreased 18 per cent in Cleveland; increased 6 per cent in Baltimore; increased 16 per cent in Pittsburgh; increased 107 per cent in Cincinnati; decreased 1 per cent in Minneapolis; decreased 8 per cent in Denver; and decreased 33 per cent in Portland.

Unemployment is tending to decrease the total enrollment in part-time types of classes, especially the general continuation type. Reports from different cities, however, vary with respect to this state-

ment. For the United States as a whole the total enrollment in all kinds of part-time classes which were federally aided under the national vocational act increased approximately 4 per cent for each of the years 1927 and 1928, the average increase for the years 1929 and 1930 was under 3 per cent.

Reports received by the Office of Education show that enrollments in part-time and continuation schools for the year 1930, as compared with the year 1928, decreased 6 per cent in New York City; decreased 19 per cent in Chicago; increased 3.4 per cent in Philadelphia; decreased 56 per cent in Pittsburgh; and increased 49 per cent in Denver. The large increase in Denver was principally due to augmented enrollments in the opportunity school. The part-time classes in this school are composed mainly of adults.

4. A small amount of data has been compiled by the Office of Education on the question of the increase in enrollments in the upper years of the public schools. For a few States for which statistics have been compiled the indications are that the percentage of the entire school enrollment found in the upper grades is greater than it was two years ago. A factor in this situation is probably the effect of unemployment. The older pupils, who do not obtain jobs readily in industry, remain in school for a longer period of time. Data furnished the Office of Education show that for the school year ending June, 1930, as compared with the school year ending June, 1928, the percentage of the entire school enrollment of California enrolled in the tenth, eleventh, and twelfth grades increased for each grade; this percentage for both New Jersey and Wisconsin increased for each grade from the seventh to the twelfth, inclusive. In Michigan this percentage was slightly improved for the ninth, tenth, and eleventh grades.

5. Technological unemployment is also affecting the educational program. Men thrown out of employment owing to changes in manufacturing processes or to the development of labor-saving machinery are seeking retraining in new lines of work. Technological unemployment is therefore putting a demand upon public vocational schools to provide retraining for new kinds of jobs. Changes in production methods and trade work have resulted in some instances in schools having money tied up in "frozen equipment," which, though standard for training in processes formerly in use, is worthless for training in new types of work and production processes necessary to meet the needs of the technologically unemployed. In such situations, schools—if they are to carry on the work of training men to fit into modern industrial life—are faced with the necessity of scrapping their obsolete equipment and investing money in new.

6. Unemployment is directing the attention of administrative and supervisory officials of vocational-industrial schools to the need for specific types of training for specific jobs. Unemployed men are seeking the most direct means of training and the most efficient types of training for the purpose of obtaining a specific pay-roll job as soon as possible. There are indications that a greater effort than formerly is made to provide short and specific types of courses to meet definite needs in industry.

7. Unemployment is resulting in the selection of new teachers with higher qualifications than were formerly obtainable. This is a case of competition, the better qualified obtaining the positions. During the strong labor market of a few years ago it was rare to find a highly skilled tradesman offering his services to teach his trade in the public schools. Occasionally a tradesman would voluntarily offer to teach a course in the evening school as a means of supplementing his day's wages in the industry, but in general the salaries paid industrial teachers were not sufficient to induce an experienced man to give up his job in industry. The unemployment situation is tending to reverse the situation.

PLANS OF ADMINISTRATIVE ORGANIZATION

During the past two years the question of the comparative efficiency of different administrative plans for providing industrial education received considerable attention by leaders in this phase of education. The question became of rather general interest throughout the United States on account of several important factors involved. Among these are:

1. *The factor of economy.*—The fact that there are various plans in existence for providing industrial training, for which public education has responsibility, has invited consideration of comparative costs. It is generally recognized, for example, that the cost of printing instruction as a vocational subject in numerous local small schools is greater per pupil than when centralized in one or a few schools in a State. If a vocational course is offered in numerous schools, especially in the smaller places, it results not only in a high training cost but frequently in the training of too many or too few persons in the particular trade to meet State needs, both of which represent inefficient and uneconomical practices. State and county systems of administration, together with part-time apprenticeship classes of a cooperative type, with much of the expense of training borne by the industry, especially for training equipment, represent effective means for meeting the problem.

2. *The factor of efficiency.*—Efficiency in industrial programs demands that training shall be given only to selected groups for whom

training is feasible and profitable from a vocational standpoint. It also requires adequate and proper equipment for instructional purposes and that the teachers be experienced and trained for the specific services they are to render. In situations where the local school systems encounter difficulty in meeting any of these conditions, especially in day classes, a larger administrative unit for enrollment of students and for school revenue makes for efficiency. A larger administrative unit is an effective way for obtaining a selected group of trainees and for limiting extra costs due to duplication of programs. In communities having a dominant industry efficient training by means of a cooperative plan is usually highly efficient.

3. *The factor of service.*—No plan for industrial training is adequate unless it is made to serve a sufficiently large number of people to meet the needs of industry. No one of a number of small contiguous school districts may be able to provide industrial training, yet the aggregate number of pupils that could be brought together at one place may be ample to warrant the organization of industrial courses. In such an instance the pupils are deprived of their right to vocational courses because the administrative plan of organization is restricted to too small a unit. With good transportation facilities a county or district plan would make it possible to provide industrial training.

4. *The factor of administrative control.*—The question as to where rests the responsibility for vocational-industrial education has been raised in different parts of the country. Present practice varies in different sections of the country. In most instances the local school system assumes full responsibility for providing industrial training, subject to supervisory control by the State if receiving State aid or Federal aid, which comes through the State department. Sometimes the county is made the administrative unit, all vocational work in the county coming under a county system. A State or a district is sometimes made the unit for vocational education.

Interest in the study of various administrative units for providing an adequate and efficient system of industrial education has directed attention to some rather distinct plans found in present practice. Some of these have particular value for the type of communities in which they are located. For example, in North Dakota, which is primarily an agricultural State with a sparse population, a rather unique plan has been developed for providing industrial training. The largest city has a population of about 35,000 inhabitants and there are only four or five cities having a population of 10,000 and 20,000. Because of these facts it was deemed advisable some years ago to centralize the trade-industrial training in one institution, namely, the State School of Science at Wahpeton. The

centralization of the industrial work in one school makes for economy of State funds, provides an opportunity for instruction in a variety of trades that could not be included in the programs of local schools, and insures a school atmosphere that could not be obtained in trade courses offered as a part of regular high-school programs. Instruction in this school is practically free of charge, the total fees paid by the students averaging less than $5 per month for each month they are in school. All students pay their own transportation to and from the school, and the cost of room and board. The school dormitory is operated on a nonprofit basis. The charges for board and room are $23 per month. Instruction is offered in electricity, radio, auto mechanics, auto electrical work, plumbing, aviation, printing, bricklaying, linotype, machine shop, welding, drafting, and estimating.

Any citizen of the State 16 years of age or older who, it is deemed, can profit by instruction is admitted. Each out-of-town student is given individual attention by a member of the staff at the time of reporting for enrollment. Personal help is given students, not accommodated in the dormitory, in locating desirable room and board. Any person is eligible to any one of the trade departments regardless of the grade completed in the public schools. Under this State-maintained school the variety of courses in trade work which are offered could not possibly be maintained by any city of the State. The objectives and plans of the work carried on by this school are indicative of what may be done in sparsely settled States where it is difficult for local schools to maintain trade courses. The plan of North Dakota for providing industrial education has received the highest commendation of some of the national leaders in this phase of public-school education, as an administrative organization for an agricultural State. Even in some States where there are both large cities and small communities in agricultural sections, the plan of supplementing local programs with a State school is under consideration.

In New Jersey the vocational school act provides that a county may establish a county vocational school under the direction of the county board for vocational education. In alloting Federal funds, however, these schools are on the same basis as city vocational schools. The State law, therefore, does not discriminate against cities in this respect. Cities may, if they wish, pay the cost of the transportation of the pupils to a county vocational school. They are not obliged to do so, however. If they do pay such transportation the cities are reimbursed from State funds to the amount of 75 per cent of the cost.

In the counties of the first class the board of education for the vocational school is appointed by the executive officer of the county

governing board who is known as the director of the board of chosen freeholders. The freeholders correspond to the county commissioner in some of the Western States. In counties of the second and third class the board of education is appointed by the judge of the court of common pleas. No separate State or county tax for vocational education can be levied. The county appropriation for vocational education is raised as a part of the county budget in the same manner and at the same time that other county funds are raised. The State funds for vocational education are set aside on order of the commissioner of education from State school funds that would otherwise be used for purposes of general education.

The New Jersey plan for county vocational schools under the administration of a county board for vocational education has made possible the establishment of a number of high-grade trade schools in the great industrial section of that State. The Essex County Boys' Vocational School, the Essex County Girls' Vocational and Continuation School, the Middlesex County Vocational School, and the Camden County Vocational School represent highly efficient programs operated on a county basis.

In Connecticut the State board of education operates State trade schools by districts established by State authority. The State schools receive the Federal aid allotted to the State. At the present time 11 districts have been formed with a State trade school in each district. Care is exercised in the formation of districts in order to distribute them to meet best the needs for training in different sections of the State. Pupils in cities having no State trade school can easily commute to a city where there is such a school. Until recently State money was used to reimburse towns having no State school for the transportation of pupils to a State trade school located in some other city. The legal provisions for this were questioned and the practice discontinued, but a new bill provides definitely for this item.

Variation in the local, county, district, and State plans is found in several States. In Wisconsin there are local boards for vocational education, consisting of five members, two representatives of local employers, two representatives of local employees, and the superintendent of schools. The members of this board are appointed by the local school board which administers the full-time schools. The boards administer through a director and independently of the local school system, the vocational schools which provide part-time and evening courses. The local boards for vocational education have a separate power for raising money by taxation and receive State and Federal aid. It is to be noted, however, that these schools are provided to take care of a different class of pupils than is found in the regular day schools. In fact schools operated under the local boards for vocational education do not include classes for full-time pupils.

Full-time day courses are a responsibility of the regular schools. In Milwaukee, for example, there are found good full-time programs in vocational education in the city system of day schools and good part-time and evening programs in the vocational school under the control of the local board for vocational education.

In a few States a larger unit than the local system is set up for providing training for special purposes. In Wisconsin, for example, an itinerant teacher is employed jointly by several neighboring cities for the purpose of giving instruction in industrial work on a part-time basis. This plan makes it possible for small schools to provide some efficient vocational training in a limited number of fundamental trades. In Ohio each of the State districts for teacher-training work has a State coordinator who devotes his time to the organization and operation of vocational training for apprentices in company plants. This work is carried on in the small places and is continued until such time as the local schools can take it over.

INDUSTRIAL WORK IN SMALL SCHOOLS

Industrial courses for the purpose of providing occupational training were first organized in the larger cities. The extension of privilege in this kind of education to the smaller school systems has been slow as industrial education, especially of the vocational type, does not lend itself readily to the administrative and instructional organization of the small school systems. However, the needs for industrial courses in the smaller schools are similar to those in the larger schools, but the problems encountered in any attempt to provide instruction for meeting these needs are usually quite different, or if similar, much intensified. Plans for the organization of the work and methods of instruction which are feasible and efficient for the larger schools are seldom so for the smaller schools.

There are usually three outstanding differences between the larger and smaller schools which must be taken into consideration in planning for industrial courses. These differences are to be found in (1) school enrollments, (2) size of teaching staff, and (3) the amount of money available for instruction and equipment. The smaller schools with their limited enrollments can not possibly maintain classes in as large a variety and number of subjects as can the larger schools, for the simple reason that there are not enough pupils to form classes of practicable size. Then, too, the limited number of teachers in the smaller school precludes the possibility of including instruction in but a limited number of subjects, especially by qualified teachers. Smaller schools are also without adequate funds for providing shop rooms and equipment on a scale that can be maintained in the larger schools.

Among the plans which have been found to have merit in attempts to provide industrial education in small places are:

(1) *Apprenticeship courses.*—In a small community which has one or two dominant industries each with enough apprentices to form a class, courses can be organized in related subjects and sometimes in courses for developing manipulative skills, especially if a well-qualified tradesman from the industry can be secured as a teacher. With such a teacher and proper arrangements with the industrial company relative to hours of instruction, attendance of apprentices, and opportunities for coordinating instruction with shop work, the chances for doing an efficient job of training are very high. When all the apprentices are from the same plant instruction is sometimes given in the plant in which the apprentices are employed. There are certain advantages accruing from carrying on instruction in a commercial plant, such as adequate equipment to meet the needs for specific instruction in problems which confront the apprentice in his work, a commercial shop atmosphere, and the saving of the time that would be required for apprentices to make the trip from the plant to the school.

In apprenticeship courses one cardinal principle of industrial training is complied with, namely, that the trainees are a selected group capable of profiting by instruction. Each pupil has already been selected by industry as a person capable of learning the occupational work into which he has been admitted and has evinced an interest in training by entering upon an apprenticeship in the particular trade. Moreover, the employer's cooperation is assured for making the training a success, as he has an investment in the apprentice on which he wishes to capitalize.

In each of the three districts in Ohio into which the State board for vocational education has divided the State for teacher-training purposes there has been appointed an apprenticeship coordinator whose duty it is to organize apprenticeship programs in industry. The apprenticeship coordinator travels to centers where a vocational school could not be established because of the smallness of the community and the cost it would entail. He, therefore, helps the local industries to organize their own training courses for apprentices. Both technical-related subjects and manipulative work in the plant are included. All the training is given in the plants of the companies served by the district coordinator. The services of this coordinator are rendered without cost to the industry until the program is well developed and an employee of the plant is trained to carry on the work. When this is accomplished the State cooperates with the local school system in providing the salary of the plant instructor and of supervising the training as a public-school project. Although

this new program is only two years old, results indicate that it will be very effective in developing industrial training in small communities.

(2) *Part-time cooperative classes.*—These classes are often organized to give successfully instruction to meet the needs of pupils who are privileged under the compulsory school attendance law to enter upon employment on condition that they attend school on a limited part-time basis. Where there are enough pupils working in the same plant to warrant organizing them in a separate class, instruction pertaining to this particular line of work can be provided. Sometimes arrangements are made for organizing instruction on a half-time basis whereby two groups alternate by some definite period—usually one or two weeks—between employment and the school. The success of this plan depends largely upon having a qualified and efficient coordinator to see that the school work is properly related to the work the boy is doing in employment and to make necessary adjustments with the employer for the boy's success on the job.

In a number of places in Wisconsin too small to provide training for apprentices and part-time cooperative pupils four neighboring towns employ jointly an itinerant instructor who regularly spends one day a week in each place. During the day the itinerant teacher gives instruction to apprentices and part-time pupils; in the evening he teaches trade-extension work to classes of adults from the industries. The itinerant instructor also makes and maintains contacts with the local industries for the purpose of determining their needs for training, the feasibility of the public schools cooperating with the industries in providing efficient training, and for securing the help of industry in the organization of a school-training program. To this end the itinerant teacher participates in numerous conferences with local school directors, employer and employee groups, and with local advisory committees composed of representatives of both employees and employers.

(3) *General industrial classes.*—Where it is not possible owing to the small size of the community to organize specific trade courses, it is sometimes possible to organize instruction in one course for a few closely related trades; for example, the mortar trades, including concrete work, bricklaying, and plastering. Another example is building construction, including general carpentry, house painting, and probably some sheet-metal work. Sometimes other units may be included, as house wiring or plumbing. Such a general building construction course should include general repair and upkeep of wooden structures.

The narrow range of jobs included in an occupation at which a tradesman may earn his living in a large city may not be sufficient

for an occupation at which one may earn a living in a small town or rural community. For example, in a city where occupational employment is highly specialized, stair building, interior finishing, house painting, sheet-metal work in building construction, plumbing, and steam fitting constitute trades, but in the small community the general carpenter may perform almost any woodworking job, including wood finishing and stair building, and the plumber may do the sheet-metal work on a house. In Iowa, for example, six cities in 1929-30 conducted general industrial courses centering around work in a typical industry and not limited to single trades. The instruction given included a broader range of skills and technical knowledge than is offered in a specialized trade in a large city. The courses are two years in length and one-half of the time is spent in trade training.

(4) *Training in industrial-arts departments.*—Sometimes an industrial-arts department provides a limited amount of training for a few pupils, which has value for employment purposes. The success of this plan is conditioned by several factors. The teacher must be qualified by adequate experience in a trade to offer vocational instruction, the opportunity must be provided for giving individual instruction to the limited number of pupils in a class who are taking shop work for vocational purposes, and arrangements must be made for pupils to spend the necessary number of hours in shop work to make vocational training worth while.

The importance of providing some trade training to meet the needs of the small communities is indicated by the results of a few recent investigations which were made to determine the extent to which pupils completing industrial training courses in small communities stay in their respective communities and remain in the trade for which they were trained. These investigations which were made in a number of small communities maintaining industrial training, located in the northeastern part of the United States, show that 50 per cent of the pupils who completed trade courses remained in their respective communities and followed the line of work in which they received training.

INDUSTRIAL ARTS

In the field of the industrial arts critical attention continued to be focused upon details relative to the place and function of industrial arts courses in the curriculum of studies. While industrial arts training is now quite generally accepted as an essential phase of the general education program, the specific courses and subjects to be included for instruction, specific course objectives, methods of instruction, the school year in which the various units of work shall

be offered, and the question of requiring some industrial arts work of all boys are still the subject of much discussion.

Observation and study of present practices, together with a limited amount of statistical information, constitute the basis for the following implication as to tendencies in industrial arts education:

1. To make shop work in the industrial arts a required course somewhere in the junior high school grades.

2. To make the exploratory objective, including the development of general industrial intelligence, the principal aim of the industrial arts work at least through the first and second years of the junior high school grades.

3. To consider industrial arts as a general education subject, governed by the same principles as govern the purpose and organization of courses for general education training.

4. To establish the user's or consumer's values as the aim for any courses offered beyond those provided in the junior high school in accordance with the exploratory and industrial-intelligence objectives. Some advance has been made in theory and a little in practice relative to establishing a clear distinction between industrial courses in the senior high school offered as industrial arts courses in general education and vocational-industrial courses offered for employment purposes.

5. To organize instruction for the exploratory objective on the basis of the general shop type of course.

6. To increase the number of shop activities included in a course for realizing the exploratory aim. The tendency to break away from woodwork as the almost exclusive type of shop activity was especially noticeable in some States.

7. To standardize in a general way the activities, projects, and quality of work for the industrial arts in the junior high school grades.

8. To raise the qualifications for industrial arts teachers.

9. To provide a 4-year curriculum in industrial arts in teacher-training colleges.

10. To organize industrial arts clubs for project work on the interest and ability levels of junior high school pupils as an integral part of the industrial arts program.

The definite and clear-cut declaration that vocational-industrial education is for the specific purpose of providing efficient training for employment in some definite occupation in the field of trades and industries has left to industrial arts education all training of an industrial character that has as its aim the realization of general education objectives. It has also eliminated from the industrial arts work all training that is specifically for employment purposes. Regardless of how much these distinctions may be confused in practice, the prin-

ciple of differentiation remains true. Courses offered with assumed mixed objectives have resulted in inefficient programs that are neither good industrial arts nor good vocational-industrial work. Training which will give the best results for general education purposes—that is, for the purpose of exploration, for the development of general intelligence, and for the intelligent use of industrial products and services—is not effective preparation for employment in productive work in the trades and industries; neither is shop work given in accordance with a bona fide vocational objective suitable for realizing general education objectives in the industrial arts. The failure to organize industrial arts courses strictly in accordance with general education objectives results in a large factor of waste, both in time and money. Some progress was made during the past two years in organizing industrial arts courses for the purpose of realizing specific objectives. An example of this is the rather general attempt to organize the work in the junior high school grades so as to meet the needs of general education for exploration in manipulative work in common construction material with commonly used tools. The tendency, therefore, is to require all boys at some time in their junior high school course to take work in the industrial arts.

The tendency to offer a general shop course in the junior high school is strong. The movement looking toward provisions for a general shop type of experience instead of an experience in several unit trade shops is only a part of the general movement in all phases of education which has for its aim the differentiation between general and special courses with respect to objectives of training, content of instruction, and methods of teaching. The general shop represents a reaction in industrial arts against the practice of special subject teachers in all lines of work to offer a first course as if the students enrolling for it were going to carry on in the subject as a life occupation. A report of the State Department of Education of Michigan states that the general shop is becoming an established fact in industrial arts programs. A general shop course adaptable to ninth-grade pupils in rural agricultural schools is being tried out with excellent results in several places in the State. A report from the State Department of Education of New Jersey says that the trend in industrial arts began several years ago toward the development of the general shop has continued. While this tendency is most marked in the larger cities there are many small districts which are also demanding instruction of a general character. Utah reports that during the past two years the program for placing the exploratory general mechanics course in the junior high schools has made considerable progress.

Pennsylvania reports that in accordance with the recommendations of the State department of education the tendency is to make indus-

trial arts compulsory in the junior high school. In these grades, seventh to ninth, the industrial arts work is offered as an integral part of the general education program. In the larger centers the shops are usually organized as separate units. In the smaller communities where only one or two teachers are required for the work, several units in industrial arts work are offered in a general shop under the direction of one teacher. During the last few years there was a remarkable development in this type of work in Pennsylvania.

In some instances girls are taking certain industrial arts courses in the senior high school. An outstanding example of an industrial arts course in which girls are enrolled is the ceramics course in the Wheeling, W. Va., high school. Most excellent work is done in designing and making chinaware and pottery products. Persons with experience and talent, both in the art and production phase of the work, are employed as teachers. The pupils are interested and the quality of the products ranks high both as to design and workmanship. The work in ceramics in this school is an outstanding example of a successful attempt to develop a high-school industrial arts course in a line of work, represented in the local region, which is of an artistic trade character.

Another example of industrial arts work for girls is the craft work in art metal, basketry, and weaving offered in the Cass Technical High School of Detroit. Girls taking the prenurse course enroll in the craft courses for the value it may have for training in occupational therapy. Girls in a few schools throughout the country are enrolling for drafting courses, especially in blue-print reading with application to house planning and building.

A committee on standards of attainment in industrial arts teaching was appointed by the American Vocational Association. The committee proceeded to collect information which would show the consensus of opinion relative to specific attainments that should be held as standards in certain shop activities. A large number of persons experienced in industrial arts work were sent a list of specific operations in certain shop activities commonly included in industrial arts programs. Each person was asked to check the ones which he believed a boy should be able to perform at the close of the junior high school period. From these returns each operation was ranked according to its frequency of selection. The report of this study is of value for the suggestions it contains, based upon opinions of experts, for organizing and judging shop programs in industrial arts. At the present time the committee is making a study of the time allotment to projects in different shop activities.

The increasing use of electricity on the farm and in the home is stimulating the development of school courses in this subject in accordance with the user's or consumer's objective. This is espe-

cially true for the small and rural communities to which electrical service is now rapidly being extended. Estimates of the probable extension in the near future of the use of such electrical appliances to present nonusers run into the millions for each of such pieces of equipment as vacuum cleaners, radios, electric fans, electric refrigerators, electric sewing machines, electric percolators, electric ranges, electric irons and ironing machines, and electric washers. In addition, the greatly extended application of the electric motor to farm equipment and the installation on the farm of special electrical equipment involving the use of heat, light, and power are resulting in further demands for electrical work in agricultural communities served by electricity.

Definite agencies and programs are in existence for the specific purpose of promoting the use of electricity on the farm. An outstanding example of this is the National Rural Electric Project now carried on by the extension division of the University of Maryland in cooperation with a national committee representing manufacturers of electrical apparatus and with electric-power companies. The aim of this project is to promote the use of electric power and electrical equipment on the farm by means of the diffusion of intelligence as to their application and economic value in production work. This program is carried on by a series of continuous demonstrations on the farms. Certain farms are selected for demonstration of particular types of electrical appliances. The university with the cooperating agencies installs the equipment and furnishes instruction and supervision for its use, under contract that the farmer is to have the free use of it for a sufficiently long period to demonstrate its economic value. The cost of operation and maintenance is carefully kept. Similar projects under the control of the State committees are now carried on in approximately 27 States.

The present use of electrical apparatus in rural and small communities, together with the immediate prospects of the further installation of such equipment, is calling the attention of school people to the need for organizing courses in applied electricity, useful for training in the intelligent selection, use, operation, and care of electrical equipment that makes for home and farm conveniences and economies. During the past two years the programs of the smaller schools reflect this situation in a tendency to include some practical work in simple electric wiring and the installation and operation of simple electrical appliances used for heat, light, and power purposes.

ENTRANCE REQUIREMENTS TO INDUSTRIAL COURSES

Recently considerable attention, with some resulting change in practice, has been given to the question of entrance qualifications for

industrial classes. The practice of making trade courses, assumed to have bona fide vocational objectives, a dumping ground for the failures, the mentally dull, and the ne'er-do-wells in the elementary and junior high school grades and in the academic courses of the senior high school grades, is improving. Rather it should be said that some school systems are eliminating such practice while others are still continuing it in full force or in a modified form. It should be mentioned in this connection that the national vocational act, together with the regulations developed under it for the administration and supervision of federally aided vocational classes, has had a most wholesome effect upon the pernicious policy of admitting to vocational courses individuals who can not profit by the instruction. Federal and State plans governing Federal reimbursements aim to restrict enrollments to those for whom such training will be feasible and practicable. However, in some school systems there are yet frequently found classes, not subject to a State plan for vocational education as are classes receiving Federal aid, for which the objectives of training are mixed and which are without any single standard as regards entrance requirements.

The present general tendency is to upgrade entrance requirements for the all-day trade-preparatory school, and for admission to part-time and evening courses to emphasize the prospects of the individual capitalizing on the training, as indicated by the line of work in which he is employed at the time. Specialization in industry and the increased use of labor-saving machinery, together with all the factors making for an easy labor market, are influencing employment conditions, and personnel officers in large industrial plants are becoming more critical with regard to the selection and retention of employees. Consequently, industrial schools which turn out students poorly prepared to compete for employment in the trades and industries are made to realize that their vocational courses are not functioning as they should. As a result, the increasing tendency to deal more discriminatingly with applications for admission to vocational-industrial courses was rather pronounced during the past two years. These higher standards for admission to trade schools have come as the result of many years of experience and development in industrial education. A score of years ago the proposal to organize a trade school "open at the bottom" so that practically any one might undertake to learn a skilled trade, met with a good deal of popular approval. It was heralded as an idea which would solve the problem of the further education of those not completing the grade school and serve as a means for filling the gap in the provisions of the public schools for furnishing educational opportunities for all classes. But as the years passed more critical consideration was given by school administrators to the abilities necessary for becoming an effi-

cient worker in a trade requiring a high degree of skill and a considerable body of trade and technical knowledge. The need for a selective influence governing admission to trade courses was making itself manifest. Some school systems have now made the completion of the eighth grade of the elementary school a first condition for admission to the all-day trade school, thus corresponding to the requirements for admission to the regular high schools. Others have set as entrance requirements the completion of the sixth grade plus regulations as to age and physical maturity.

CLASSES FOR THE RETARDED

The growing practice of denying to mentally slow and retarded pupils admission to vocational-industrial courses is accompanied by the question of what provisions to make for this group of pupils. A study of the history of the development of industrial courses in almost any city will reveal the fact that in the past there was a general assumption on the part of most persons in the field of general education that shop work was a panacea for all mentally retarded, over-age, disinterested, and incorrigible boys. Practice indicated a rather general belief that shop work would create a new interest that would lead to school success, that the boy with low mentality would succeed in a trade course, become a skilled workman and a self-supporting and self-respecting citizen, and that the incorrigible would become tractable and obedient through shop experience. In general the working assumption of academic teachers was that those pupils who lacked ability to develop mental skills possessed ability to develop manual skills; that the absence of the former in some way inferred the presence of the latter. As a consequence when academic teachers pronounced a pupil a failure in their lines of work their inevitable recommendation was that the boy should be given shop work and learn a trade. Too often the public-school officials responsible for the transfer of students from one class or school to another would follow the recommendation and assign the boy to the vocational school, where it was presumed he would learn his arithmetic through the motivation he would receive from shop projects and that he would learn to use good English by talking and writing about shop work.

Shop courses, however, have not been able to work any such magic. The results of psychological studies involving individual differences and the relation of mental and manual types of reactions, together with many sad experiences resulting from attempts to give dull pupils a renascence through shop experiences, all indicate that it is highly probable that a pupil who is deficient in abilities to succeed in elementary academic school subjects is also deficient in abili-

ties necessary for becoming a skilled and successful worker in the trades. As a result of this changing attitude more attention than formerly was given to provisions for organizing classes and programs in shopwork which would be feasible and practicable for this rather large group of pupils. School systems which have made an effort to provide shop training of a character to meet best their needs have frequently proceeded along different lines. Some of the common arrangements include:

1. A segregated group with a special teacher in the same building and using the same shops and equipment along with the regular pupils, but in a differentiated course and frequently devoting an extra amount of time to shop work.

2. Inclusion of the retarded pupils with the regular pupils in shop work under the same instructor. It is usually assumed under this plan that some provision for individual instruction will be made that will help meet the needs of the retarded pupil. This plan is often merely an administrative device for taking care of the backward pupils, and unless definite plans are made whereby it is possible for the teacher to give considerable special attention to these pupils their needs are not met. If he does this, the regular group usually suffers; if he does not, the result is that the retarded pupil is merely neglected.

3. Administration plans for the segregation of pupils in special schools with adjusted shop courses.

Any plan for providing suitable shop instruction for mentally retarded and backward pupils should be made to fit into the general scheme for industrial courses, as the inclusion or exclusion of this group of pupils for instruction in the regular schools will affect the character and plans for instruction in these schools. An outstanding example of an industrial program in a city school system designed to meet the needs of all classes of pupils is found in the city of Buffalo, N. Y. That city maintains four 4-year industrial high schools with an enrollment of about 2,500 day pupils and the shop work is organized strictly in accordance with the vocational objective. One of the entrance requirements to the day classes is that the applicant must have successfully completed the elementary school grades. This requirement is rigidly enforced and the result is that the pupils enrolled in vocational classes are a selected group, which is an essential for efficient vocational training. For pupils of elementary and junior high school age making normal school progress 100 shops are maintained for industrial arts work. Buffalo, however, does not stop with provisions for vocational and industrial arts work for pupils making normal school progress. By means of quite a complete system of special schools and classes provisions for industrial

training are made to meet the needs of special groups. There are a half dozen or more special schools to which pupils failing to make satisfactory progress in their academic subjects can be assigned. In these schools one-third or more of the time of the school program is given to practical types of industrial work. No attempt is made to offer unit trade courses in these schools. The object is to provide practical shop work, sometimes of a general, sometimes of a specific character depending upon group needs, that will help the boy to make adjustments to employment conditions in industry when he leaves school. A sufficient amount of shop work in leather, metal, wood, and electricity is given to familiarize the boy in a general way with elementary construction work in common materials by the use of hand tools and a few machines, and to furnish him a basis of appreciation for working conditions in a commercial shop.

In addition to these special schools for slow and mentally retarded pupils there is also an "opportunity school," which performs work which is interesting and which is valuable to society, in giving an additional and final chance for the nonconformist, the overage and mentally slow boy to accomplish something that will be an inspiration to his morale before his final separation from the public school. The group of 200 boys enrolled in this school is a heterogeneous one with a wide range in ages, both chronological and mental. The daily program is divided equally between general class work and shop activities. The shop work includes machine shop practice, sheet metal, woodwork, broom making, cobbling, and chair caning. The teachers are well qualified for dealing with the particular type of boy sent to this school. The shopmen are skilled mechanics, interested in boys, and the instruction is good. The shop work is of a practical character, much of it of a trade nature. Broom making is given strictly as trade training. The brooms meet a commercial standard and are sold on the market.

Shop work is provided in yet another type of school in Buffalo, the continuation school. For the boys and girls in employment under the part-time law, practical types of work are furnished in the continuation school. Boys have an opportunity to enroll in courses offering training in drafting, printing composition, commercial art, electricity, automechanics, printing press work, machine shop work, woodworking, and plumbing. During the year 1929–30 a total of 3,746 boys was enrolled in the continuation school. The highest weekly registration of boys was 3,118.

FOUR-YEAR COURSES

In some places there is a tendency with respect to full-time classes to organize both trade and technical subjects as 4-year courses in high

schools, both of the special and regular types. Several factors more or less varied are contributing to this movement. Among them are:

1. The tendency for pupils in the upper school years to continue in school over a longer period of time. Between 1917 and 1928 the percentage of the total school enrollment included in the third and fourth years of high school practically doubled. For the third year of high school the percentage in 1917 was 1.57 per cent; in 1928 it was 3.05 per cent. For the fourth year the percentage was 1.22 in 1917, and in 1928 it was 2.47.

2. The desire to obtain a diploma from a 4-year secondary school.

3. The development and organization of more content material for trade and technical courses. In some courses, auto mechanics for example, the content material has been greatly expanded by the inclusion of additional units of instruction in shop and laboratory work.

4. The desire to obtain increased State aid. In some instances more State aid is given if trade and technical courses are organized in some kind of high or secondary school.

5. Increasing age for entering employment. Legal regulations and employment conditions in the industries are making it more and more difficult for pupils of normal high school age to obtain work.

6. Higher qualifications for admission to trade and technical schools. Pupils who must meet regular high-school entrance requirements in order to be admitted to trade courses have qualified for secondary school work and naturally want secondary school credit for any further school work.

According to the regents' rules in New York State, which went into effect in 1928, and the regulations of the State commissioner of education, industrial high schools offering unit trade courses may be established and maintained by the board of education of any city or school district, or the vocational education and extension board of any county. Schools coming under these regulations are to be organized as separate units and must meet certain required standards relative to their ability to provide efficient instruction in industrial and trade work, including approval of courses of study and equipment. An industrial high school may offer 1, 2, 3, or 4 year courses.

The minimum length for the school day is six hours, with 50 per cent of the time given to practical work in a unit-trade subject, 25 per cent to general subjects, and 25 per cent to related technical subjects. Teachers are required to hold special licenses for vocational work.

The four 4-year industrial high schools of Buffalo, organized under these State regulations, are outstanding examples of vocational schools undergoing transformation into 4-year industrial high schools. They are meeting a demand for good trade instruction in a

large variety of courses which carries recognition for secondary school work.

There are certain cautions, however, to be kept in mind in providing 4-year trade courses in a high school. The city school system has a responsibility for providing industrial training for those who will not complete a 4-year course. It is important that training in special and short unit courses to meet the needs of this class shall not be neglected. It is also necessary to make careful studies to determine if the content of a given trade occupation is sufficient to warrant a 4-year course. In the industrial high schools of Buffalo a very careful and thorough analysis of each trade course is in progress to ascertain the advisability of expanding it into a 4-year course.

The question of the character and place of 4-year technical courses is also in the foreground of the problems in industrial education demanding the attention of educational leaders in certain parts of the country. For many years institutions of college grade have offered technical courses of a professional type and many secondary schools have offered a 4-year general technical course. The technical curriculum in the secondary schools, however, was of a college preparatory type, consequently its values were largely propædeutic. With the passage of the national vocational act in 1917 attention was called to the need for a limited amount of technical instruction definitely related to a specific trade course. Between two occupational extremes, represented by the engineer and the tradesman, there is a great body of industrial workers who need training of a character and amount in excess of that necessary for the journeyman tradesman but less than that required for the engineer. For this great group of workers very little technical instruction is provided. Occasionally some progressive school system has sensed this need and initiated attempts to provide types of training to meet it. The State Department of Education of New Jersey reports that there is an increasing demand in industry for superior types of high-school boys who have had technical training of less than college grade. As a result a number of districts in New Jersey are becoming interested in this type of work and are considering the establishment of courses to meet this need.

New York State has set up standards for the establishment of technical courses closely related to some particular industry, for example, a 4-year technical course in electricity. These technical courses provide a good basic training such as is needed for entrance to junior engineering occupations. The State department of education sets up five specific aims of a unit technical high-school course as follows:

1. To make clear to the pupil the opportunities that exist for junior workers in the various technical fields.

2. To give the pupil training in the more easily mastered fundamental theories and practices of the technical occupations which he desires to follow.

3. To give the pupil thorough preparation in the pure and applied mathematics and science which a junior worker in a special technical field must obtain.

4. To give the pupil a good general knowledge of the tools, materials, processes, and methods used in the practical construction or production work to which the special technical service relates.

5. To give the pupil the use of modern technical methods in the solving of problems in some one technical field.

The high-school diploma in technical subjects is issued only for a registered 4-year technical high school offering courses in one or more of the following fields: Architecture and building construction; power generation; chemistry; electricity; mechanics; and textiles—marketing, chemistry and dyeing, mill building and operation, costume making, and cloth construction. It is expected that the student earn at least half of his total high-school credits in the technical field which he is pursuing. Four units of work are required in mathematics and science. The school day is from 6 to 7 hours in length.

Teachers of technical subjects in order to obtain a license are required to have three years of approved technical experience in the field or fields to be taught. To meet the requirement for general or technical education the applicant must have satisfactorily completed four years of approved work of collegiate grade in engineering, science, or architecture. To meet the professional requirement, he must have satisfactorily completed 90 hours of approved professional teacher-training work. The teacher of shop work in the unit technical schools is required to have had five years of approved training in the journeyman grade in the trade he expects to teach. The general educational requirement is the satisfactory completion of the first year of work in an approved high school or its equivalent, and that in professional training is the completion of the required courses of the extension vocational teacher-training curriculum of the State.

AVIATION

Interest in aviation as a public-school course greatly increased during the biennium. The strong belief that aviation will constitute a principal method of transportation in the future, together with the novel attraction it holds for youth, is resulting in a strong demand for its inclusion as a subject in the school curriculum. As is frequently the case when a general desire is expressed for school training in a new subject, the desire in some instances outruns any well-thought-out procedure as to feasible objectives, efficient methods of instruction, adequate equipment, qualified teachers, and curriculum

projects. At the present time there is a strong tendency to offer instruction in subjects related in some way to aviation in both the junior and senior high schools. Present practice is to include as school activities: Model aircraft building (usually in the junior high-school grades); instruction of a general information character; practical instruction in subjects related to aviation, such as drafting, gas-engine work in the automobile shop, and woodwork in the construction of airplane parts; and training of a vocational character in some specific occupation in aviation.

The work offered in different schools varies greatly in variety and quality, but requests for information coming to the Office of Education indicate a widespread need for the organization of instruction in a way that will serve better some specific objective that will have functional value in life activities. The construction of model aircraft in the junior high school, when of a character corresponding to the accomplishment ability of the pupils, constitutes a valuable project in the industrial arts and one which is strictly in accord with the interest levels of the pupils in these grades. Not only is the number of schools including such work in their industrial-arts programs rapidly increasing but the quality of the work is also much improved. The designs and construction follow much more definitely the principles governing the construction of commercial craft. Recently considerable attention has been given to building gliders. Construction work in this type of aircraft is proving to be both a popular and valuable project in industrial-arts work.

While there was some increase in the number of schools offering a course in aviation with an avowed vocational objective, the greatest progress was made in the improvement of the character of the training. Leaders in industrial education recognized the fact that if an efficient program in aviation was to be realized it would be necessary to offer courses in some specific phase of the work which would be in accordance with commercial standards and in which employment could be reasonably expected on completion of training. To those who were making a thorough study of the possibilities of developing training with a true vocational objective in some phase of aeronautics it was apparent that care should be exercised in the selection not only of the types of work to be undertaken but also of the individuals to be admitted to training. It was early realized that the number who wished to become pilots was far in excess of the opportunities for employment as aviators. Attention, therefore, was centered more upon groundwork and work connected with the manufacture of airplanes. Cities in which airports or factories for the building of airplanes are located have the advantage in attempts to develop efficient courses in aeronautical lines of work. In such cities the opportunities are present for securing the cooperation of individuals and com-

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mercial companies actively engaged in aeronautical work. Valuable service is rendered by these commercial agencies and individuals in the organization of a training program, in obtaining qualified teachers, in securing proper equipment, and in the selection and placement of trainees.

The program at the Burgard 4-year industrial high school of Buffalo, N. Y., is an example of the successful development of vocational courses in aeronautics. The public schools have secured the assistance both of the manufacturer of airplanes and the personnel of the airport of that city in providing proper instruction to meet the local needs for trained men. Four-year courses are offered which include training in aircraft construction and repair, aircraft machine shop practice, aircraft electrical repair, aircraft welding, aerodynamics, and meteorology and air navigation. One-half day for four years is spent in shops completely equipped for the particular kind of instruction offered, the other half day is given to regular high-school subjects and vocational-related work in science, mathematics, and drafting. Six shops are devoted to work in aviation. There is an especially equipped shop for advanced airplane construction, advanced aircraft engine repair, airplane welding, aircraft electrical work, and air plane machine-shop practice. The large tower of the building is used for the study of meteorology and air navigation and is equipped with such instruments as wind and speed dials, cloud indicators, and barometers. In addition there is a drafting and blue-print room for instruction in reading and making airplane drawings. The school has 8 complete airplanes, 30 airplane engines, and numerous airplane parts. The shops are equipped with overhead tracks, electric hoists for lifting and conveying motors, and an exhaust system for removing fuel gases from running motors. All instruction is specific. Some courses are organized on the definite requests of industries to meet their own immediate needs for men trained in some special line of work. The instructors are men with practical experience. In some instances the teachers are men from the industries who are employed by the school to give a specific course. The school accommodates 150 day students. At night, 250 are enrolled for instruction, including classes in theory and related subjects. Hundreds seeking admission are turned away.

PRODUCTION JOBS

Heads of industrial arts departments frequently encounter difficulties in their attempts to provide shop experiences of a character that will best give the pupils an insight into commercial methods of production. The limited time usually given to industrial-arts work makes it especially difficult to include in the shop program jobs on a

quantity basis. The time required for giving the pupils a general and varied type of shop experience in accordance with the exploratory objective leaves but little opportunity for repetitive work. The inclusion, therefore, in the industrial-arts program of a considerable number of jobs having similar learning difficulties with approximately the same degree of intensity constitutes a real problem. Some repetitive jobs, however, are essential if the pupils are to acquire in any degree speed and skills in manipulative phases of shop work and ideas of commercial standards for quantity output.

Another reason for not including commercial jobs on a quantity basis, is the strain that is frequently placed on the industrial-arts programs by the demands of the school or board of education for repair and production jobs. Often consecutive jobs coming from a board of education are of a miscellaneous character and involve widely dissimilar learning difficulties as well as great differences in the degree of skills required for their performance. This interferes with the instructional order of the shop program and makes training difficult. Instructors also find it difficult to organize the shop for work on a quantity basis. As a rule only the advanced students in the industrial-arts courses can be used to advantage for the purpose; the equipment often is not adequate, and special equipment such as gigs and fixtures must be designed and made for insuring accuracy and speed in the production processes; the regular jobs carried on by other classes using the shop are in the way; and the continuity of the production work is broken up by the short periods that the boys are assigned to the shop and the long intervals which follow before the work can be resumed.

Recently there has been a growing interest in commercial jobs on a production basis for advanced pupils in industrial arts work. Various plans have been undertaken to overcome the obstacles mentioned. In certain instances considerable success has been attained in providing some suitable work that will give the pupils a limited amount of experience on production jobs in accordance, to some extent at least, with commercial methods. Some schools have set aside a definite time in the shop program to be used for making mechanical toys of a commercial character in quantities that can be disposed of by the school. A few schools have provided for one or two jobs of a commercial character in which the work can be specialized on a quantity production basis, and have made these jobs the order of work for the last part of the industrial shop course. Other schools have taken advantage of commercial jobs coming from the board of education and planned in advance to fit them into the instructional order of the shop work at different times in the year when it is feasible to include them as a regular part of the shop

program. The cooperation of those requesting work of the industrial arts shop in planning their needs in advance, thus preventing requests for rush orders, is an important factor making for the success of this plan. Certain types of printing jobs, electrical jobs, construction and repair jobs can be utilized when arranged for in time to make them a unit part of the shop work.

The industrial arts department of the Cincinnati public schools has adopted a plan for doing certain kinds of commercial jobs coming in quantity orders from the board of education that largely overcomes these difficulties. As long as 15 years ago the manufacture of school furniture was undertaken in school shops because it provided an opportunity to develop quantity production methods, thus revealing to boys modern industrial practices as compared with the old craft, or hand processes. The results were so satisfactory to the board of education that the demand for production increased beyond the ability of the shops to do the work within the limits of the ordinary school program. To meet this demand and to take advantage of the opportunity to do production work on so large a scale, groups of boys from industrial arts classes were organized to carry on the work more intensively during the summer vacation periods. Recently the development of the work has been stimulated by the need for special furniture in the reorganization of the primary grades. The summer work is now largely centered in the shops of one of the junior high schools where the conditions are best adapted to this type of work in that the shops are located in a building once used as a factory.

Quite a variety of jobs are included in this summer work. Work tables, sand tables, work benches, easels, ferneries, and other furniture for the primary grades have been made in large quantities. All of these were of original design and substantially constructed. It is also the custom to maintain so far as possible the equipment for all industrial arts shops. Work benches, woodwork vises, drawing tables, drawing boards, drawing-board cabinets, type-case stands, and paint-spray booths are among the many pieces of equipment that have been designed and built by vacation groups. In addition, electric power and light lines have been installed.

The teachers for the summer work are very carefully chosen to meet the specific demands of the organization of the vacation shop. The number of teachers employed varies with the amount of orders received for summer work. To each teacher are assigned seven or eight boys who are selected on the recommendation of their shop teachers from various junior and senior high schools of the city.

In selecting the boys no particular emphasis is placed on their probable future vocation. Most of them have been members of industrial arts classes, taking the work as a part of their general education.

Their participation in the summer class for making school equipment is justified on the ground that it is a wholesome thing for any boy to work, especially in the type of organization and environment provided by this vacation work.

In the development of the summer program in Cincinnati the following objectives and principles of procedure have been kept constantly in mind:

To provide opportunities for intensive application to specific construction problems by working 8 hours a day for a period of 6 or 7 weeks.

To reveal to boys the economic advantage of the division of labor on quantity production problems.

To encourage the development of original practices through the use of machines and special devices.

To pay a nominal wage to the boys in order to initiate them into the wage-earning group under favorable conditions. There are no snap jobs in the vacation work.

To provide as wide a variety of experiences for each boy as is consistent with the necessity of specialization. The boys are given a variety of experiences in different phases of trade work, including metal work, woodwork on machines, assembling jobs, and wood finishing jobs.

The Cincinnati plan for vacation shop work on quantity production jobs for the schools, carried on under the direction and supervision of men highly qualified to organize production work according to good commercial shop standards, provides for the boys admitted to this group a type of shop experience which they would scarcely be able to obtain in any other way. Under the immediate supervision of competent men in each of the different types of work included, the experience which the boys have taxes their power of concentration, their ability to accept responsibility, and their ingenuity. Since the summer work is limited to making products which the board of education would otherwise buy, and are produced at a cost not to exceed commercial prices, these worth-while experiences for boys have been made possible without additional cost to the board of education.

GUIDANCE

A great deal of activity was manifested during the past biennium in the field of guidance. Membership in guidance associations increased, additional associations were organized, a national advisory committee composed of outstanding leaders in education was formed, and a national vocational guidance committee on State guidance programs with a personnel ranking high among the leaders in the guidance movement came as an outgrowth of the work of the National Vocational Guidance Association. The development of organizations interested in promoting guidance is indicative of the increase in guidance literature, in guidance programs in the schools, and in the number of guidance studies which were made. A large number of occu-

pational studies each contributing information relative to the nature of the work in a given occupation; the necessary training and experience for entering the occupation; and the working conditions in the occupation were prepared and published. Many of these were issued by public-school systems, others by individuals and private agencies. The development of appropriate and usable literature on occupational studies was one of the largest contributions made to the guidance movement during the biennium. The need for guidance as a school activity is now generally recognized; guidance as an organized part of the public-school program, however, is still in the developmental and experimental stages. For this reason programs of guidance associations largely centered about plans for organizing and carrying on guidance work. Publications on guidance chiefly dealt with the philosophy, principles, and theories underlying guidance as the various authors conceived of them.

There is quite a general agreement, however, to certain needs that should be met by guidance programs and certain guidance functions that should be performed. For example (1), the need for occupational studies that will make sure that high-school students have an opportunity to analyze the major vocational groups and some of the occupation levels within the major vocational fields; (2) the need for counseling, including individual counseling, as an essential part of a guidance program; (3) the need for a vocational guidance program that will include placement and follow-up work; (4) the need for studying the individual relative to his aptitudes, interests, health, and social and economic status as these may affect his opportunity for a successful career.

There are still many problems in guidance which have not been sufficiently studied and tried out in practice to unify opinion in regard to them. Among such questions are: The placement and function of tests and measurements in a guidance program, the organization and direction of counseling work, the qualifications of counselors, the administrative organization of guidance in a school program, the various activities which should be included in a guidance program, and the relation of guidance and placement to the issuance of work certificates.

Some of these problems are the result of treating different phases of guidance as separate and distinct units, functioning independently under different administrative and supervisory divisions. Guidance, however, is a unit and all phases should be integrated for a common purpose; it is as broad as education itself and should be made a unified process in an educational program.

Progress was made during the biennium in the development of State and local guidance programs. Nine States now have guidance

programs under way. Seven of these were started during the past two years. The official in the State department of education in whom the guidance work centers varies with the different States. A few States have a director either of guidance or vocational guidance. In some States the person in charge of secondary education is also in charge of the guidance work. In some instances the person having responsibility for the guidance program of a State is a member of the staff of the attendance division or a person dealing with the school curriculum.

In Ohio there has been created a division of guidance in the State department of education with a director at its head. Considerable time is spent by the director in traveling about the State assisting local schools in the development of plans for a guidance program. Several publications on guidance have been issued by the State department, one of which is a manual for teachers. In Pennsylvania there is a State plan for guidance under which the counties organize their own programs. Forty-eight counties in the State have inaugurated guidance programs. More than 700 schools have counselors or advisers devoting full time or part time to these activities. New York State in 1927 enacted legislation setting up a State program of guidance and providing for a full-time State supervisor. In Virginia programs were organized on a county basis. In North Carolina a committee on guidance has been appointed to plan methods for guidance work. In both California and Washington the State department of education has issued a publication on guidance.

A few local studies have been made of the vocational interests of high-school students as they have expressed them in response to the question as to what specific line of work they desire to enter as a life occupation. An analysis of the results of such studies usually reveals a wide disparity between the vocational interests—probably better expressed by vocational desires, and the probabilities that any considerable percentage will be able to follow the vocation of their choice. The report of such a study, recently made in an eastern city having a population in excess of 50,000, will serve as an example of the correctness of this statement. In the high school of that city 2,626 students, of whom 1,691 were boys and 985 were girls, expressed a vocational choice. A little more than 300 expressed no decision as to a life career. Percentages computed for the vocations which attracted the larger number of students show that 17 per cent wish to become teachers, 13 per cent to enter secretarial work, 12 per cent to become engineers in different fields of this profession, 9 per cent to follow aviation, 8 per cent to become nurses, 1.8 per cent to enter the medical profession, 1.6 per cent to become lawyers, 0.08 per cent to become pharmacists, 0.08 per cent foresters, 0.05 per cent dentists,

0.05 per cent ministers. The other choices were distributed among a wide range of occupations, such as social service, scientific research, agriculture, optometry, mining, metallurgy, and dramatics.

Regardless of the fact that for the school year ending June, 1930, approximately 700 pupils in this school were reported as enrolled in "industrial and technical training (trade courses)," little interest is evinced by students in trade and industrial occupations. Moreover, with few exceptions, the vocations would require training beyond the high-school level. However, an examination of data reported for that school shows that for the year 1929–30, only 17 per cent of the students were enrolled in the senior year, thus indicating that a considerable percentage of the students will not finish high school. In addition, not all of the graduates continue their education beyond high school. Only 18 per cent of those graduating in 1929 entered college and only 9 per cent additional entered some other institution such as a business college or normal school.

The foregoing situation reveals the need for organizing work in guidance that will enable pupils to obtain a clearer conception than this report indicates of the work of the world and the distribution of workers according to occupations. Frequently schools make provision for persons from various occupations to speak to groups of pupils for guidance purposes relative to their respective lines of work. The school referred to in this report does more than provide a series of talks. It has arranged that on certain days persons from various occupations come to the school and do individual counseling with pupils relative to the occupational field in which they are respectively interested. A counselor is provided for each of the following occupational fields: Aviation; architecture; art; dentistry; domestic science; business; secretarial work, accountancy, and salesmanship; engineering; forestry, agriculture, and horticulture; law; medicine; music; nursing; military service; pharmacy; physical training; teaching social service and ministry; trades; and journalism. The field of trades collectively is covered by one person.

The distribution of emphasis in this counseling program probably accords with practice in other general high schools. However, when the fact is considered that of all persons in the United States 10 years of age and over engaged in gainful occupations in 1920, only 5.2 per cent were in professional service, it is evident that some change in emphasis in high-school programs of training and guidance is needed. Most of the general high schools still represent a secondary type of education that is of a highly selective character. Even though in this type of school the curriculum of studies has been broadened to include trade and other kinds of vocational courses, the whole atmosphere of the school and the background of school experi-

ences and activities are such as to point toward college and to direct interests in life careers, in so far as any are aroused, to vocations for which college training is necessary. Under such circumstances it is difficult for vocational courses to have a fair chance for success.

A critical attitude has been manifested during the past few years toward the use of mechanical aptitude tests. However, the search for objective tests that will assist industrial-school supervisors in the selection, classification, and promotion of students in industrial work has gone forward with considerable vigor. The development of nonstandardized objective tests for specific lines of work has made considerable progress during the past two years. A considerable number of teachers in different cities over the country have been working on the development of objective forms of tests in special subjects for the purpose of evaluating the work of their pupils. Probably the most significant results in the test and measurement work have been attained along this line of endeavor. A few individuals have also been working on the problem of developing criteria to be used in the selection and retention of pupils in trade and industrial courses.

In one of the large cities with an extensive program in trade and industrial education an experienced shop teacher trained in tests and measurements was added to the vocational staff to devote full time to the study of students enrolled in trade courses Studies have been undertaken in that city to determine some of the factors involved in the failure of students in industrial classes The city does not require the completion of the elementary school as a condition for entering the trade school. In general, pupils are admitted to trade classes if they are as much as 14 years of age and have completed approximately the first six grades of the public school and give evidence of ability to profit by the instruction The entering group, therefore, is not a highly selected one with reference to academic education. The expert has undertaken a study of the pupils failing at the end of their first semester's work in the trade schools. Each of these pupils was given three different mechanical tests. The results showed that 90 per cent of the pupils who had failed were below the median for the pupils of the trade school on one mechanical test, 82 per cent on another, and 76 per cent on the third mechanical test. It is planned to continue this study with future classes for the purpose of determining the reliability of the results. If the results of the first test are substantiated by a sufficiently large number of pupils, the evidence will be strong that there is a relation between scores made on these mechanical tests and the chances for success in trade-school work. In such an event the tests would have value as a factor in the selection of pupils to be admitted to trade courses.

This, however, does not necessarily imply that tests labeled "mechanical tests" actually measure mechanical aptitudes. It may be possible that the factor or factors in the test which correlate with school failure are not mechanical aptitude. It may be some factor in intelligence, personality, or emotional stability. The study is one well worth further investigation by means of different kinds of tests and other instrumentalities for determining as accurately as possible all forces which may influence school success.

TEACHER TRAINING

One of the questions which has continually confronted administrators of industrial-education programs is that of an adequate supply of properly trained teachers. The preparation of teachers is not only one of the essential aspects of trade and industrial education but one which must precede any efficient vocational instruction. This fact was recognized by the leaders in the early movement for vocational-industrial programs in the public schools. It was felt by those in charge of the drafting of national legislation that it would not be sufficient to make provisions for Federal aid to industrial training without providing funds to aid in the preparation of a sufficient number of qualified teachers to insure the effective carrying out of the provisions for industrial training. The national vocational education act in 1917, therefore, contained provisions for the reimbursement of the salaries of those employed in the training of industrial teachers in the same manner as for teachers of vocational classes. In addition it included provisions for withholding Federal reimbursements for vocational education from those States that did not at a certain date meet the requirements for teacher training as provided in the act.

During the past two years leaders in industrial education gave considerable attention to the question of what constitutes an adequate and effective program for training industrial teachers. This was reflected in the programs of teachers' associations, in the industrial arts literature of the period, and in conference discussions by officials in this phase of education. Discussions taken as a whole were quite critical of certain features of the plans and programs in effect. They, however, dealt with the situation in a constructive manner and offered suggestions for meeting some of the inadequacies of existing methods of training.

The problem of the adequate preparation of industrial teachers involves the selection of properly qualified applicants for enrollment in teacher-training courses. This in turn necessitates the determination of certain basic qualifications for industrial teachers. Those who have had experience in carrying on successful programs

of training for employment in trades and industries have long maintained that the first essential qualification for the teacher of a trade subject is a number of years of experience as a journeyman workman in the trade he expects to teach. The developments in industrial education during the past decade wholly justify this basic assumption and have made it possible for administrators and supervisors to demand that the first essential qualification for a teacher of a trade subject shall be an adequate experience in the trade which he is employed to teach.

With the trade qualification so universally accepted as a condition for employment as a teacher, the progressive leaders in industrial education during the past two years were enabled to argue with clarity and force for a type of teacher-training work in accord with this preestablished teacher qualification. As a result more attention than previously was given to the selection and treatment of subjects to be included in a teacher-training program which would be most efficient in making a tradesman a teacher of his trade. Not only the subjects to be included in the teacher-training curriculum, but the whole plan for the organization, administration, and method of conducting teacher-training courses became the subject of much constructive criticism.

The emphasis placed upon trade experience for shop teachers brought into the foreground the question of trade experience as a qualification for related-subjects teachers. The criterion for determining what any teacher should know and be able to teach can always be ascertained from the objectives set up for the instruction, namely, the development of abilities to perform certain specific tasks. While the use of this principle for the determination of qualifications of teachers was no new experience to leaders in industrial education, it did receive a new emphasis by them during the past two years. It was reemphasized in order to impress those responisble for the selection of related-subjects teachers and those responsible for teacher training with the necessity for selecting teachers with industrial experience for teaching related-subject matter and for organizing teacher-training courses to meet the needs of persons with these qualifications. It was pointed out that the abilities needed for performing work jobs in a given trade require knowledge of certain scientific facts, mathematical computations, and graphic representations, such as working drawings, but that the knowledge needed in any of these is not that of pure science. Only the ability to make application of facts as determined by science is needed for the performance of specific jobs in the trade.

Particularly has the question of the relative values of pre-employment and in-service training of teachers and the place of each in a teacher-training program been in the foreground in the past two

years. In-service training is more and more looked upon as a supervisory responsibility of local and State officials. Assistance given to individual teachers during visitations by these officials is an effective method of training. All psychological factors are favorable for its functioning. It comes at a time when a teacher is in need of it; the situation is at hand for its application and the results can be quickly checked. In-service training also includes assistance by supervisory officials in planning class organization, methods of instruction for special phases of the work, and job and operation sheets to be put into the hands of the individual students. The interest of the teacher is great at this time and as a rule he applies himself assiduously to the tasks which will improve the efficiency of his classroom work. Again in-service training is about the only type of teacher-training work that can be carried on with evening instructors. Frequently teachers of evening classes are secured from the trade where they are employed during the day. The commercial shop is probably the best source of evening school teachers, but they need short and intensive courses of a specific character to aid them in laying out their work in an instructional order and in the presentation of it to their classes in accordance with good principles of teaching.

Pre-employment teacher training is effective if properly organized with reference to the subjects to be included, the methods of instruction to be used, and the selection of candidates for the course. Care should be exercised in the selection of individuals for pre-employment training in order to determine that each individual has had sufficient trade training to warrant his profiting by the instruction offered. The group should not include those who are taking it merely as a subject for which they may receive credit. In such a situation general educational objectives are liable to become predominant in the work of the course, and the specific type of training needed for making a shop teacher be neglected.

Recently there have been pronouncements against the character of subjects included in industrial teacher-training programs. Such subjects as general psychology, history of education, and general methods courses have become a target of those leaders in industrial education who believe in the inclusion in the program of studies only those subjects which have direct and immediate bearing upon the efficiency of instruction in industrial subjects. This does not mean that one who expects to become a teacher of shop subjects should not take any of the above-mentioned subjects, but it does mean that they shall not be counted as specific training for shop teaching. No objection is raised to a shop teacher being a college graduate, but objection is made to a college graduate becoming a

shop teacher unless he is a qualified and experienced tradesman with necessary preparation for teaching. The first essential always for a shop teacher is that he be a tradesman. Being that, it is quite possible to give him a short preemployment training course, followed by in-service training and training during summer vacations that will make him an efficient teacher.

SUMMARY AND CONCLUSION

1. The range of occupations included in trade and industrial education is increasing. The number of occupations represented in unit-trade day-school programs has almost doubled in the past half dozen years. The spread of occupations included in part-time and evening courses is probably even greater, due to the fact that it is often feasible and advisable to provide training for persons already employed in certain types of work, but for which it would not be advisable to provide training on a preemployment basis. Such specific occupations as flower making, meat cutting and packing, and box making are now found among the subjects offered in various types of industrial classes.

2. Trade training in the past has largely been for certain highly skilled trades. It is now beginning to be recognized that some semi-skilled lines of work, for which only a comparatively short period of training is necessary, constitute a legitimate and useful field for school training. For example, short courses for training in window washing, cosmetology, and in certain janitorial services are now offered in some places where there is a demand for trained workers in these occupations.

3. Specialization in industry has resulted in the development of a great many more jobs than existed a few years ago. The improvement and extended use of machinery are contributing factors to this situation. Schools are recognizing more clearly than ever before that it is not sufficient to offer only comprehensive trade courses, such as the machinist's trade, but that it is necessary to provide training in specialized jobs. For example, schools are providing courses in drill press and lathe work to prepare individuals for specific employment in the operation of these machines.

4. During the past two years more attention than formerly has been given to the efficiency of public-school programs in trade and industrial education. Administrative and supervisory officers generally have sought to develop programs with a view to obtaining the maximum amount of training for each dollar expended. This has resulted partly from the general movement to reduce school costs to a minimum consistent with good standards of accomplishment and partly to a movement originating in the field of industrial education

itself to check the results of training by different types of programs for the purpose of determining their relative efficiency. Such efficiency factors as the amount of time devoted to training, the cost of the training program, and the energy spent by both teacher and student in the realization of the specific objective of training have received attention. In general, vocational-industrial education has not suffered in comparison with other types of education as a result of such studies as have been made. This is probably due to the fact that industrial training is subject to more immediate and more objective forms of tests than are most types of education, with the result that considerable critical attention has continuously been given to the efficiency of industrial programs.

5. The past two years have witnessed an increased emphasis upon the procedure to be followed in the development of an industrial education program. The importance of having contact or advisory committees from industry for cooperating with school officials in the organization and development of industrial programs was more generally accepted in practice. These committees, composed of representatives of both employers and employees in specific trades or industries, have been especially valuable in selecting the courses to be included in the training program, in securing properly qualified teachers and adequate equipment, and in the organization of instruction so as best to meet the needs of industry.

6. Some change in the emphasis given to the different kinds of classes included in industrial programs has taken place in the past two years. More emphasis has been placed upon adult and part-time classes. Present practice indicates that there is an increasing realization of the importance of providing educational opportunities for adults who need further training in their present occupation or training for a change of occupation. Evening-school work also has received more attention. Present practice indicates a belief in the assumption that money expended in trade-extension courses for persons already employed yields a more certain and a more immediate return on the investment than does the money expended on preemployment training.

7. Statistics indicate that there has been comparatively little, if any, increase in enrollments in the general continuation type of classes. Some cities show a decreased enrollment, due to employment conditions. The opportunities during the past two years for the employment of youth between 14 and 18 years of age were very much limited. The unemployment situation tends to reduce the number of children entering upon wage-earning jobs; consequently there is a shift from enrollment in part-time classes to full-time classes. Another factor affecting the situation is the general tendency to extend the length of compulsory full-time school attendance.

8. Day-unit trade courses have not absorbed so much of the attention of administrative and supervisory officials during the past two years. There are two special reasons for this—one, that such work is well accepted and now requires but little effort for its promotion; the other, that greater value than formerly is attached to part-time and evening courses as extension training for employed persons. The value to a program of vocational-industrial education of day-unit courses affording preemployment training to those who wish to prepare for positions in the trades and industries is well established; the value of part-time and evening courses providing trade-extension education for employed persons is receiving greater recognition.

Enrollments in federally aided day-unit courses amount to about 11 per cent of the total enrollments in all types of federally aided trade and industrial classes. During the past two years enrollments in federally aided evening industrial classes increased approximately 44 per cent; in part-time trade extension and trade preparatory classes approximately 11 per cent; in day trade classes approximately 24 per cent.

9. A study of the geographic distribution of various kinds of trade courses shows that there is yet lacking a sufficiently high degree of correlation between the kind of trade work offered in a given locality and the dominant industries of the section. During the past two years leaders in industrial education have pointed out with renewed emphasis the desirability of providing training in accordance with the needs of the local industries. Experience has shown that students completing trade courses usually enter the employment of local industries, even though the character of their training has not been such as will most effectively meet the needs of the employing companies.

10. Training courses for men in charge of production work in the industries, such as foremen, have increased. During the past two years the demand for such training has made it necessary in many places to augment the personnel rendering this type of industrial service. Two kinds of courses are now generally offered, one a trade-extension course for foremen, having for its purpose the improvement of foremanship by means of group conferences conducted by qualified leaders, the other a teacher-training type of course for preparing men with industrial experience to become foremen conference leaders.

11. In some places administrators and supervisors of industrial programs are faced with the proposition of providing new types of courses to meet new and changed conditions in the industries. In certain instances this has resulted in schools having on their hands "frozen equipment"; that is, equipment which has been used for training in lines of work or manufacturing processes no longer followed in industry and which can not be used for training in new

types of work. In such cases the schools are confronted with the necessity of discarding such obsolete equipment and purchasing other equipment suitable for the new lines of work.

12. Considerable critical attention has been given during the past two years to the subject of the selection and training of industrial teachers. The problems in this phase of industrial education have been reviewed and basic assumptions restated. An adequate amount of trade experience as a qualification for teaching has been emphasized, the advisability of providing ways and means for the upgrading of teachers in service has been stressed, and the need for a more careful selection and evaluation of subjects to be included in an industrial teacher-training program has been definitely pointed out.

13. In industrial arts there was a growing realization that the work and practice in the junior high school grades, for pupils making normal progress, should be organized in accordance with general education objectives. The form of organization which is proving very efficient for this type of instruction is the general shop. For the past four or five years general shops in the public schools have increased rapidly. The indication is that the increase is more rapid now than at any time in the past. For the more mature and overage pupils in the elementary grades, some schools have provided through special classes shopwork of a more specific and more practical character.

14. The practice of the past two years has shown an increasing tendency for public schools to accept responsibility for guidance and to assume it as one of the objectives of educational training. Both States and city school systems have devoted considerable attention to the development of materials bearing upon guidance, to the organization of programs, and to the procedure for carrying the programs into effect. Vocational guidance still occupies the prominent place in the thinking of most people and receives the major emphasis in most guidance programs. This is due to the fact that it touches most immediately the end result of guidance, namely, placement in an occupational career. However, a complete guidance program will embrace more than vocational guidance and placement. It will be based upon a conception of guidance as broad as education itself, and include as objectives guidance for health, social adjustment, and personal habits.

15. There is an increased interest in the development of occupational information courses. Not only is there an increase in the number of schools offering such courses, but the content of the courses and the methods of instruction are both undergoing refinements which may be expected to result in greater value to pupils.

CHAPTER V

COMMERCIAL EDUCATION

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Contents.—Introduction—Trends revealed by enrollment statistics—Research basis for objectives—Commercial occupation surveys—Office equipment surveys—Job analyses—Significant developments in the secondary schools—Recent surveys of commercial education—Contents in commercial subjects—Developments in city and State supervision—The private business schools—The junior colleges—Training and certification of commercial teachers—Commercial teachers' associations and conferences—University education for business—Conclusion.

INTRODUCTION

Business education, in which more than a million students are enrolled, is not only one of the most rapidly growing phases of the entire educational program but is one of the major responsibilities of secondary and higher institutions. The necessity for developing more appropriate and effective programs of education for and about business is emphasized by the changing economic conditions in the United States. Current economic and business problems of the individual, the home, local communities, and the Nation are occupying rôles of increased importance. The trend toward upgrading the requirements for entrance into, and success in office and sales positions, together with the decrease in real wages in the clerical occupations, emphasizes the significance of designing improved business training programs in the secondary schools. Also the increased responsibilities of leadership in our Nation's business challenging the collegiate schools of business, the bureaus of business research, and the leaders in business, place additional obligations on higher institutions training men and women for business careers.

The chief development in providing education about business as a part of the educational heritage of all citizens is the exceedingly rapid introduction of junior business or general business science courses. These courses have been designed to provide an elementary concept of modern economic and business problems, the common business services, and business customs for pupils who have not

reached the age at which they are permitted to leave school. In addition to providing an introductory course for all pupils, the leaders in this field are urging an advanced course in economics and business information for those who continue in high school. In the latter course they desire to emphasize the relationship of business conditions in this country to international affairs, the meaning and social significance of the basic problems in business, the complexity of our modern economic structure, and the increasing interdependence among the different kinds of business. The traditional and ordinarily abstract courses in high-school economics are too limited in content and availability to provide an adequate understanding and appreciation of the enhanced importance of business in our rapidly changing civilization. The leaders in business and in education for business feel the need of a higher citizenship standard of information about modern business.

During the past two years there has been an increased willingness in the secondary and, to a less extent, in the collegiate institutions to study objectively the need for, and the effectiveness of, the different phases of business education. The outstanding developments in secondary commercial education pertain to the many city and State investigations of curriculum problems and to the many research studies in methods of instruction. The leaders in this field, together with the new type of professionally trained commercial teachers, are responsible for this progressive trend. Inasmuch as the collegiate schools of business have been so absorbed in providing facilities for the increasingly large number of students, these institutions have based their offerings chiefly on opinions rather than on objective investigations of the needs. They have borrowed heavily from the earlier collegiate schools of commerce. In fact, the philosophy that has predominated did not obligate these institutions to conduct basic curriculum studies. The few significant investigations in this field made during the biennium indicate the ascendancy of the philosophy involving scientific curriculum revision.

Other recent trends and major problems are increased enrollments, particularly of young women in the secondary schools; a new interest in basic research studies; the introduction of machine operating, retail training, and cooperative part-time courses; the organization of terminal vocational curricula on the junior-college level; additional facilities for the training of commercial teachers, particularly in the universities; the broadening of the scope of activities of the commercial teacher-training institutions and commercial teachers' associations; and the urgent need for adequate supervision. The trend toward research for improving the appropriateness and effectiveness of the business education program is the most encouraging

development. The Office of Education and the Federal Board for Vocational Education have assisted in setting up the objectives, outlining the procedures or interpreting the data for practically all of the research projects. The least hopeful sign of the past two years has been the rather general failure of the educational institutions to seek whole-heartedly the cooperation of business men and business men's organizations in an effort to improve the guidance, training, and placement programs.

The purpose of this chapter is to review briefly the outstanding developments and to analyze some significant trends in education for business as revealed in reports from city and State departments of education, special reports from institutions and commercial teachers' associations, as well as magazines, books, and graduate theses in this field.

TRENDS REVEALED BY ENROLLMENT STATISTICS

The enrollment of more than a million young men and women in business courses is evidence of some of the outstanding educational, occupational, and social trends of the twentieth century. The number enrolled in business courses exceeds the number in any field of vocational training chiefly because of the multitude of opportunities in business and because of the mobility within business occupations. Increasingly large numbers of young men are turning to organized training programs rather than to apprenticeship. Furthermore, one of the greatest social changes in history is indicated by the increased enrollments of young women in business courses. In all types of schools their percentages of increase exceeded those for men. Only in collegiate education for business does the number of men exceed the number of women. The breakdown of the earlier prejudices against women in office and store occupations, the introduction of modern office equipment and methods, the increased desire for economic independence, and the social phases of business positions have been the chief factors in the latter trend.

At the beginning of the past decade there was much speculation as to what the postwar trends would be in business-education enrollments. The increase in enrollments during the World War exceeded the increase during any previous period of equal length. The business education programs in the different types of schools, and particularly in the public high schools, expanded rapidly to meet the emergency. With only one exception, the different types of schools offering business subjects continued to expand their programs after the war. Data compiled during the biennium reveal that in the past six years the increase in enrollments in this field amounted to 59 per cent in the private high schools and 72 per cent in the public second-

ary schools. Furthermore, there was an increase of more than 300 per cent in the colleges and universities during the past 10 years.

Collegiate education for business is growing far more rapidly than higher education in general. Although the collegiate schools of commerce are among the most recently organized divisions of the universities, they are in many instances the largest of the professional schools. If the percentage of increase in enrollments in the various professional schools for the past 10 years obtains for the next decade, the schools of commerce will be the largest of the professional and vocational schools. Even if the percentage of increase in business enrollments during the past 10 years were increased many times during the next decade there would be little danger, if any, of a surplus of collegiately trained personnel for business. There are many indications that these schools will continue to grow very rapidly.

An analysis of the enrollments in collegiate education for business [1] reveals a trend toward specialization in functions among the collegiate schools and departments of business. Although the number of courses, the number of instructors, and the number of students enrolled in each of the business subjects doubled in the past six years, the number of institutions offering specialized curricula remained practically the same. Fewer than 20 higher institutions offer curricula in advertising, foreign service and foreign trade, realty or insurance. In this connection, four-fifths of the college students studying realty are enrolled in six higher institutions; two-thirds of those in advertising courses are in 10 universities; and half of the students in insurance are pursuing their courses in only 5 institutions. In certain geographic regions there is a concentration of schools that offer some of the specialized curricula. Furthermore, 56 per cent of the first degrees in commerce in 1919–20 and 57 per cent of such degrees 10 years later were granted in only 6 States—California, Illinois, Massachusetts, New York, Ohio, and Pennsylvania.

One of the major developments of secondary education has been the exceedingly rapid growth of commercial education. Approximately 20 per cent of the secondary-school pupils are now enrolled in the commercial curricula; in many States the percentage exceeds 30, and in many cities the percentage is approximately 50. Nearly two-thirds of all enrollments in education for business are in these schools. Two-thirds of the pupils enrolled in secondary business education are women, and the number of women is increasing far more rapidly than is the number of men. The secondary schools, of which approxi-

[1] Malott, J. O. Commercial Education Circulars Nos. 26 to 31, and 33 to 37, inclusive; and Circulars Nos. 11, 13, and 14. Washington, U. S. Office of Education, Department of the Interior, 1929. (Mimeographed.)

mately 10,000 offer commercial subjects, have made better adjustments of their courses to the needs of young women than to the needs of young men.

Enrollment data reveal many other significant trends. One of these trends pertains to the upgrading of business education. Ten years ago only 1 boy out of 10 and 1 girl out of 120 who were studying business education were enrolled in the colleges and universities. The ratio for boys now is 1 out of 6 and for girls 1 out of 70. Furthermore, two-thirds of the pupils in the private business schools are high-school graduates, whereas 10 years ago a small percentage of the private business school pupils had completed high school.

The recent changes in the enrollments of boys in the secondary schools tend to follow, although very slowly, the changes in their employment opportunities. The greatest percentages of increased enrollments for boys were in salesmanship, commercial law, office practice, commercial geography, economics, typewriting, commercial arithmetic, and bookkeeping. There was an increase of only 5 per cent in their enrollments in shorthand during the past six years, and only 18 per cent of the secondary pupils enrolled in shorthand were boys. Although the percentage of increase for boys in salesmanship is high, the actual number enrolled is relatively small. The trend toward salesmanship is desirable and should be encouraged for both boys and girls.

Another significant trend pertains to the changing emphasis on the traditional technical subjects in the secondary schools. At the beginning of the past 6-year period shorthand, typewriting, and bookkeeping accounted for 74 per cent of enrollments in the commercial subjects in the public high schools and 88 per cent in the private high schools and academies. At the close of the period the percentages had decreased to 59 and 70, respectively. Although the enrollments in the technical subjects are increasing rapidly, there has been an unusually large increase in the enrollments in the general business information courses.

RESEARCH BASIS FOR OBJECTIVES

The traditional objectives of secondary and higher education for business continue to predominate and control the curriculum practices. In the endeavor to replace the traditional with more appropriate objectives much confusion arose because of the different approaches or procedures for determining objectives. Many of the approaches lack in simplicity and directness and tend to confuse rather than clarify the desired outcomes and the necessary steps in attaining them. During the past two years, however, there have been fewer articles and discussions, particularly of the dogmatic type, that placed

undue emphasis on either the vocational or general business information objectives.

Outstanding in the discussions that temporarily disturbed the progress in setting up objectives were the recent attempts to superimpose on commercial education, particularly in the secondary schools, the objectives from sociology, economics, and other instructional fields. The proponents of all contemporary bases for determining objectives, except those favoring the scientific study of the needs, fail to consider the fact that the objectives for sociology and economics supposedly grew out of the needs for instruction in those fields and that the objectives and principles for business education should grow out of the needs for general business information and vocational or professional business training. Other factors that caused confusion regarding objectives were erroneous interpretations of survey reports and disagreement even among those who were in positions of leadership. Fortunately these disagreements have provided for commercial teachers generally a point of departure in discussing objectives. Such disagreements have tended to break down the traditional objectives and to emphasize the necessity of a better basis for the entire business education program.

The greatest factor to date in revealing the current fallacies in the objectives of the business training program is the accumulation of approximately 600 research studies in this field. The additional studies made available during the biennium were particularly helpful in destroying the effectiveness of the vocational versus the nonvocational discussions, in revealing the fallacy of superimposing objectives from other fields on commercial education, and in breaking down the traditional concept of training for only a limited number of business positions. These studies call particular attention to the necessity of arriving scientifically at the major and minor objectives. Such studies tend also to result in the acceptance, evaluation, and refinement of vocational and nonvocational aims. Perhaps their chief contribution has been a clearer distinction between preparation for initial and preparation for promotional opportunities. Although some of the studies were poorly conducted and although some of the data have been misinterpreted, the making of these studies is the progressive commercial teacher's challenge to the traditional program.

The growing acceptance among the rank and file of commercial teachers of the research technique in establishing objectives and practices is encouraged by the leaders as the key to immediate improvement. To date the progress is not so much in the quantity and quality of studies that have been conducted but in the concept of curriculum building that is developing, particularly among those

who are making the studies and those who carefully interpret the findings. In this connection the secondary schools have progressed more rapidly in studying their objectives than have the higher institutions. Comparatively few of the colleges and universities have conducted worth-while follow-up studies or studies of the needs for collegiate business education in a given region or industry. Almost without exception the colleges and universities do not take an active interest in studying the needs for business education of that half of their students who do not graduate. Among the leaders and progressive groups in both types of institutions curriculum investigations have resulted in a very definite break with many traditional objectives and practices. Out of the pioneering efforts there has been constructed a program for a more careful study of the training needed for the various levels of business positions, including the clerical, business expert, and business executive. Some of the secondary and higher institutions have conducted research regarding many of the steps in the program of scientific curriculum revision, but none of these institutions have made the entire series of studies necessary for the reorganization of the training program.

The most significant trend with reference to objectives is toward measuring and analyzing the need for, first, general business information, and, second, vocational business training. This trend has developed to the extent that it is definite evidence of the beginning of a new era in this field. The leaders seek to differentiate the objectives and content according to the determinable needs. The procedures for setting up the general business information objectives, content, and curriculum practices involve studies of the need for an understanding and appreciation of our modern economic structure; an understanding of the social significance of business in America and in international relations; the difficulties of citizens in urban and rural communities in handling their economic and business problems; a knowledge of the common business services and products; standards of attainment in the bodies of knowledge desired for citizenship; and studies of the pupils and of the extent to which they continue through the various school years. The vocational commercial subjects must begin with objectives and content where the general business information ceases, because the vocational aspects pertain to the additional content and skills necessary for occupational efficiency.

The procedures for determining the vocational objectives, content, and curriculum practices as emphasized during the biennium involve chiefly studies of the importance of training for different kinds of initial and promotional opportunities in business; analyses of the duties of positions on the various occupational levels; studies of

standards of performance, and traits of the successful, average, and problem employees; and studies of the specific abilities, interests, traits, and other factors of the pupils who seek business training. Comprehensive studies of the types indicated reveal the broad social responsibilities of the business executives and many other factors that are not ordinarily included in the narrow or limited occupational analysis. Practically all of the outstanding developments of the biennium pertain to one or more steps in this program of scientific curriculum revision. The emphasis, however, has been on studies of the vocational needs.

COMMERCIAL OCCUPATION SURVEYS

The making of commercial occupation surveys is the first major step in a program of scientific curriculum building in business education. Comprehensive surveys of this type provide definite information regarding the relative importance of training for each of a large variety of business positions. Data from these studies present a fact basis for determining what business curricula should be offered in the secondary and higher institutions. These surveys indicate also the school years in which the curricula should be offered; the ratio of men to women that should be prepared for each of the variety of business positions, and the various levels of each of the positions; and frequently those phases of the training program that are most helpful or least helpful. Another important contribution is that they provide a basis for distinguishing between preparing for initial as opposed to preparing for promotional opportunities, thus giving direction to the emphasis that should be placed on each of these phases of the training program.

During the past two years there was an increased interest in follow-up studies of the drop-outs and graduates of the particular institutions. Although the commercial occupation survey pertains primarily to the need for, or appropriateness of, particular curricula, the follow-up study pertains chiefly to the measurement and analysis of the effectiveness of the business training program in a specific institution. Instead of revealing a cross section of the local needs for training employees in different occupations, the follow-up study reveals for a given institution the occupational distribution of its drop-outs and graduates, the nature of their initial and subsequent positions, and frequently an evaluation of many of the factors in the guidance, training, and placement programs. One contribution of this type of study is that it gives direction to the strengthening of the curricula offered. The chief limitation of such a study is that

it gives no indication of failure to provide other curricula perhaps more urgently needed.

The second major step in curriculum building in this field pertains to an analysis of the duties performed by the employees on the different ranges and levels of positions. The most important factors regarding these duties are: The importance of the duty, difficulties experienced by the employees in their initial and subsequent positions, the frequency of the performance of the duty, and whether the duties could best be learned in school or on the job. Ordinarily the job-analysis type of study is combined with studies of the traits of the workers in the respective positions. Such analyses are usually made with special reference to the persons employed in the various positions, but studies of positions without reference to the employed personnel are frequently necessary.

The chief contribution of the job analysis and trait studies is that they give direction to the selection of definite bodies of knowledge and skills to be incorporated in the commercial curricula. Various formulas have been developed in evaluating the ultimate significance of training for the performance of the respective duties. This step in the program for curriculum building requires so much research that there are very few good examples of its application. The contribution of job analysis so far as guidance and placement are concerned is that it focuses attention on actual requirements of particular positions.

The third, and frequently neglected, major step in curriculum building pertains to studies of standards of attainment. It is not sufficient to know merely the importance of training for particular kinds of positions and the duties performed in each; it is essential that we know the standards of performance of the duties by the successful, average, and unsuccessful or problem employees in the various occupational levels. It is particularly important that studies of standards of attainment be made in order to obtain a better understanding of the requirements for success in initial positions, for retaining positions, and gaining promotion. Only to the extent that comprehensive studies are made to show the requirements for success in terms of standards will it be possible to set up more effective guidance. After occupational standards are established it will be possible with greater assurance to establish grade standards and entrance standards in the various curricula.

The superintendent of schools of Pittsburgh, Pa., appointed a committee of high-school teachers of bookkeeping to revise the course of study for that subject. In studying the problems that confronted the committee Victor M. Rubert, chairman, and other members of the committee soon realized the necessity of determining

how well the commercial courses were functioning. A study [2] was undertaken, therefore, of 714 former commercial pupils in the regular high schools and of 790 commercial pupils in evening schools. The committee found that 30 per cent of the boys and 25 per cent of the girls are in positions requiring a knowledge of bookkeeping, and 31 per cent of the boys and 68 per cent of the girls were in positions requiring a knowledge of shorthand. The committee concludes that the survey justifies four or five semesters of bookkeeping.

The board of education, of Newark, N. J., conducted a survey [3] of the office workers in that city in March, 1930. As a result of the survey, preparations were made immediately for instruction on office machines. It was recommended that the different kinds of office equipment be introduced gradually "thus giving teachers time to familiarize themselves with the operation of various machines and in which to carefully prepare a course of study." Inasmuch as only 6 per cent of the 878 employees studied obtained their positions through the Newark high schools, the following recommendation was made:

> Placement bureaus should be very carefully organized in each of the commercial high schools, with a person in charge who can give this definite supervision and who can establish business contacts with employers for the type of office worker that the high schools can and should turn out. This placement bureau should not be a makeshift organization, but definite information regarding all graduates should be on file. This information should be specific as regards the individual—his school record, his personal record, and any characteristics that would enter into the question of employment.

Two of the most comprehensive follow-up studies of secondary pupils that have been made were completed in Sioux City, Iowa,[4] and Yonkers, N. Y.[5] Both surveys reveal that although the graduates are finding positions for which they have been trained, there is need for better guidance and placement service; and that the demand for graduates who have had retail training or who can operate different kinds of office equipment is increasing. The latter study contains an analysis of the duties of the graduates and a report on personality traits.

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[2] Occupational Survey of Commercial Graduates, Drop-outs and Evening School Pupils in Pittsburgh High Schools. Curriculum Study and Educational Research Bulletin, 4: 163–92, March–April, 1930.

[3] Newark (N. J.) Board of Education. Report on the Survey of Office Workers in Newark, N. J. Newark, Board of Education, 1930. 10 pp. (Mimeographed.)

[4] Traxler, Bina Mae. A Follow-up Study of Commercial Graduates with Respect to Shorthand, Office Training, Bookkeeping, and Salesmanship. Master's Thesis, 1930. School of Education, Northwestern University, Chicago, Ill. 110 pp. (Mimeographed.)

[5] Worthington, E. E. Educational Adjustments for a Metropolitan District Commercial High School as Based on Employment Experiences of Its Graduates. Master's Thesis, 1929. School of Education, New York University, New York, N. Y. 70 pp. (Typewritten.)

The University of Michigan, Ann Arbor, through its bureau of business research, conducted cooperatively with the National Federation of Business and Professional Women's Clubs, an occupational survey of the 46,760 members of the federation. Usable returns were received from 14,858. The first of a series of reports analyzing the present occupational status of the group was published in 1930.[6] Fifty-five per cent of the women were in clerical, stenographic, and sales positions. Some of the findings of the study are: With few exceptions, women in business and the professions are not highly paid; the chances of high earnings are very much greater for women working in commercial and manufacturing organizations than for those employed in educational institutions, with women in sales and publicity work having a higher average than either of these two; and women who have been graduated from a college or university are earning more in every kind of work than women with less education.

Dr. Clarence S. Yoakum conducted a study of the University of Michigan graduates who had majored in accounting.[7] Among the findings are: The average initial salaries in accounting positions are below those in comparable business positions; 16 per cent of the graduates progressed three times as rapidly in salary increases as did the slowest 16 per cent, during the period covered by this study; the average length of service in each of the first four positions held after leaving the university is about 18 months; and the average length of service with a particular company is 25 months.

During the past two years, Dr. C. O. Ruggles, graduate school of business administration, Harvard University, directed a survey[8] of university education for public-utility positions. Some of the findings of the survey are: Higher institutions should provide a more adequate program (not necessarily more courses) to prepare graduates for positions in public-utility companies; higher institutions should study carefully the possibilities for more effective coordination of business with engineering and law; a limited number of higher institutions should consider offering short courses for employed personnel; and industry should cooperate in the development of improved guidance, training, placement, and research programs.

The Yale survey on transportation, which was completed one year prior to the making of the survey on public utilities, revealed that the railroad executives were not interested in employing college grad-

[6] Elliott, Margaret, *and* Manson, Grace E. Earnings of Women in Business and the Professions. Ann Arbor, University of Michigan, 1930. 215 pp. (Michigan Business Studies, vol. iii, no. i.)

[7] Business and the Young Accountant. Ann Arbor, University of Michigan, 1929. 42 pp. (Michigan Business Studies, vol. ii, no. iii.)

[8] Public Utilities. New York, National Electric Light Association, 1929. 154 pp.

uates and that there was inadequate cooperation between industry and higher institutions in the training and research programs pertaining to transportation.

OFFICE EQUIPMENT SURVEYS

One of the developments growing out of the commercial occupation surveys has been the making of office equipment studies. The increased use of different kinds of office equipment emphasize the necessity of investigating to what extent instruction should be given on office machines in the schools. Communities developing new syllabi for machine instruction have found it necessary to study the kinds and amounts of equipment used in local offices of different sizes and types; the extent of the use of the equipment; difficulties in learning to operate the equipment; the production standards of the operators; where the employees learned to operate the equipment; and the age, sex, amount of training, and business experience of the operators. The chief problem is to determine what phases of instruction on office equipment should be given in the schools and what phases can be learned satisfactorily on the job.

Winifred G. West, in one of the best office equipment surveys that has been made,[9] recommends the introduction of machine operating courses for credit in the secondary schools. She analyzes the cost of different plans for offering the courses; suggests a program for teaching the courses; recommends that the teachers be efficient in their ability to give instruction in the operation of the different machines provided (because commercial teachers generally are not prepared to teach machine operating); and emphasizes the necessity of development of closer cooperation with business men in the training and placing of the operators and in keeping the equipment up to date.

Lloyd H. Swart, in The Place of Office Machines in the Commercial Curriculum, which is a report of his study made in Rochester, N. Y., analyzes the need for instruction on office machines as follows:

> When a business has grown to the size warranting machines to handle the work skilled operators are needed. Most firms, as indicated by this survey, desire to secure trained operators and believe they should be taught in school. * * * To meet this situation the manufacturers of nearly all the machines maintain schools in the local sales offices. A tuition sufficient to cover the cost of maintaining the school is charged and the company secures positions for those who complete the course.
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> Only a small fraction of the students taking commercial work in the secondary schools can afford to pursue also a course in some school maintained by a

[9] West, Winifred Gwendolyne. Survey of Machines and Appliances Other than Typewriters Used in Indianapolis Business Offices, with Recommendations for the Training of Prospective Operators. Master's Thesis, 1930. Indiana University, Bloomington.

manufacturer. If they did, the instruction would only be on that one particular machine, whereas the student should be familiar with more than one. * * * Education is provided to enable pupils to become useful members of society. The commercial curriculum is not meeting this standard unless it includes instruction on those machines which are commonly used.

The definite place of office machine instruction in the commercial curriculum is a matter of administration. * * * Probably the greatest objection to an office machine program is the cost of the equipment. It is true that this type of equipment is expensive. However, a full complement of machines for an office machine class would not exceed the cost of two lathes in a well-equipped machine-shop class. * * * If education is to serve its purpose, it must meet the needs of the boys and girls in the field of commerce as well as those in any other field of vocational work.

An excellent example of a continuous office equipment survey for the purpose of determining what additional equipment is necessary for maintaining appropriate instruction in office practice is under the direction of Miss Ray Abrams, principal, Boys High School of Commerce, New Orleans, La. The initial investigation was made in 1925 and was followed in 1926, 1927, and 1930 by surveys, each of which covered additional items. As a result of obtaining a better understanding of the need for training on office machines additional units of instruction were added and some of the units were lengthened, thereby increasing the length of the course from one to two semesters. In revising the course special attention was given to the kind of machine instruction that should be emphasized in each of the different curricula.

Louis A. Rice made a survey of the office practice courses in the New Jersey high schools.[10] Finding that only half of the schools offer machine operating courses he concludes that although the larger schools need a greater quantity of each kind of office machines the small high schools need at least a variety of office equipment. In his report he states that the study "reveals a dearth of especially equipped laboratories for office practice. Such rooms are particularly desirable in the larger schools where a large amount of applied work is done and where many business activities could be taught in a more real setting if certain furniture and equipment were provided." He makes an appeal for the development of office practice courses for credit, pointing out very clearly the advantages of such courses to the pupils, the school in general, and the business community. An office practice syllabus, issued by the State department of education, and based partly on the survey findings, contains recommendations regarding minimum equipment and equipment for subsequent purchase.

[10] Report of a Survey of Office Practice in the New Jersey High Schools, 1929–30. Trenton, State Department of Public Instruction, Feb. 6, 1931. (Business Education Letter No. 6.) Mimeographed.

Progressive teachers in many other cities have made similar investigations. A survey report from Sioux City, Iowa, concludes: "It is very evident that there is a strong demand for a knowledge of machines and that a school is not functioning unless it equips the students with such knowledge." A study of the graduates from the commercial departments of the high schools in Terre Haute, Ind., who are employed in local offices, shows that a higher percentage of them were required to know office practice and typewriting than any other commercial subjects. One of the recommendations of a survey in Yonkers, N. Y., is that more pupils be prepared to operate office machines and that additional equipment be installed to meet the demand for this type of training. An office equipment survey has been planned in Detroit, Mich. Without exception, investigations of this type emphasize the need for instruction on office equipment.

JOB ANALYSES

The analysis of the duties of junior business workers in Cleveland, Ohio, by W. L. Connor and L. L. Jones,[11] is an outstanding research study in curriculum revision of the past two years. Such items as frequency of the duties, importance, difficulty, where learned and where they should be learned were included in the report. The teaching units that were recommended were listed under the following headings to indicate the level of mastery that should be attained: "Practice until automatic"; "Discuss in class until thoroughly understood"; and "Mention in class and in reference material." The Cleveland (Ohio) Board of Education and the office-managers group of the National Association of Credit Men, in that city, cooperated in the making of the investigation. In addition to this study, the board of education of that city through its committee on bookkeeping made a very thorough analysis of the duties of bookkeepers which was the basis of a revision of the local course of study published in 1928.

Two worthy contributions analyzing secretarial duties reported during the biennium were made by B. Frank Kyker,[12] and Beatrice Doerschuk.[13] The former analyzed the duties of 222 stenographers in offices employing from 1 to 300 stenographers, representing 25 kinds of business, located in 68 cities in 24 States. He found a "definite tendency for a duty to be learned on the job as the number performing it decreases. Conversely, as the number performing a

[11] A Scientific Study in Curriculum Making for Junior Courses in Business Education. New York, Gregg Publishing Co., 1929. 144 pp.

[12] The Commercial Curriculum. New York, The Gregg Publishing Co., 1930. 74 pp.

[13] The Woman Secretary. *In* Proceedings of the fifth annual meeting of the National Association of Appointment Secretaries, Boston, Mass., 1928. pp. 11–17.

duty increases, there is a tendency for it to be taught in school." Four years of high-school training, including a commercial course, was almost universally considered a minimum requirement for stenographers. The investigation which was made as a graduate thesis contains valuable material for the revision of stenographic courses of study.

An occupational survey and job analysis of commercial pupils in the Philadelphia (Pa.) continuation schools was conducted by John G. Kirk, director of commercial education, for the board of education of that city. The author states:

> The primary problem was to determine the frequency of performance of each duty by junior workers in the various businesses in which the continuation school boys are employed and to use the results in revising the order of the topics in the course of study. * * * Teaching the duties required in business of junior workers in the order of frequency of performance is very essential in a continuation school because we do not know exactly how long the pupil will remain.

The report, which appeared in the November, 1928, and January and February, 1929, issues of the Journal of Business Education, should be most helpful in revising the curricula in the continuation schools.

Satisfactory analyses of the duties performed led naturally to a new emphasis on the selection of content, standards of performance of the various duties, and experimentation in the techniques of instruction. Many of the best studies of the latter types were made during the biennium. Recent city, State, and regional investigations reveal that the standards of attainment as set forth in courses of study are much higher than the actual standards. Heretofore the course-of-study standards have been based chiefly on opinions. Studies that are helpful in establishing standards in shorthand and typewriting are by A. E. Bullock, director of commercial education, Los Angeles, Calif., involving some 2,000 pupils; by L. A. Rice, of the State department of education, Trenton, N. J., pertaining to 39 public high schools of that State; by Vernal H. Carmichael, of the Ball State Teachers College, Muncie, Ind., concerning 6,396 pupils in 178 high schools of that State; by C. B. Owens, of the Baltimore City College, Baltimore, Md., relating to approximately 10,000 high-school pupils in 19 States; and by John G. Kirk.[14]

Among other worthy studies completed or in progress during the past two years are those conducted in Chicago, Ill.;[15] Minneapolis,

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[14] Selecting Standards for Shorthand Transcription. Journal of Business Education, 2: 18–19, June, 1929.

[15] Chicago (Ill) Board of Education. Vocational Guidance Bureau. A Study of Clerical Positions for Boys in Large Chicago Offices. Chicago, Board of Education, 1928. 36 pp. (Occupational Studies No. 15.)

Minn.;[16] New Castle, Pa.;[17] Terre Haute, Ind.; Newton, Mass.; Los Angeles, Calif.; Boston, Mass.; and Providence, R. I. Dean J. A. Bexell, of the school of commerce, Oregon Agricultural College, Corvallis, is following up 1,200 graduates from the business curricula of that institution. Dr. F. W. Taussig, of Harvard University, is making a study of the vocational, social and economic background, and other factors of approximately 15,000 successful business men. In general, the recent studies are characterized not only by the large number of employees and pupils studied but also by the large number of problems investigated in each study. Although much of the emphasis has been placed on personality traits, analysis of initial positions, and sequence of the positions held by the drop-outs and graduates, a most hopeful trend is toward refinements in the selection of content and in the techniques of instruction. The many excellent investigations in this field are indicative of the new leadership among the commercial teachers and of a trend toward a more progressive and professional policy of certain boards of education and business men's organizations, particularly as regards the program for education for business. The editors of the Balance Sheet and the Journal of Business Education have encouraged the making of various types of curriculum studies.

SIGNIFICANT DEVELOPMENTS IN THE SECONDARY SCHOOLS

The rather general introduction of general business information and typewriting courses is the most important development of commercial education in the junior high school. The chief refinement in the former type of course is that in addition to retaining vocational objectives for the commercial pupils there is a rapidly growing emphasis on nonvocational objectives and content. Prior to the past two years most of the courses had been designed in accordance with exploratory objectives, the needs of drop-outs seeking junior employment, and the needs of those who expected to continue in the senior courses. Recent investigations, however, revealing that pupils remain in school longer and that all need general business information, warrant the organization of instructional units designed for all pupils. In fact, the new objective is to raise the general citizenship standard of economic and business information, which objective has been sponsored by all important committees and commissions reporting on social science or business education. The division of research, board

[16] Wright, Barbara H., *ed.* A Follow-up Study of Stenographers and Office Workers. Vocational Guidance Bulletin (Minneapolis Public Schools), 4 : 2–4, January, 1930.

[17] Book, Harry D. Adjusting the High-School Curriculum to the Needs of the Community : A Report with Recommendations, Made by the Commercial Curriculum Committee of the New Castle, Pa., Public Schools. Cincinnati, South-Western Publishing Co., 1929. 29 pp.

of education, Cleveland, Ohio, conducted a recent study to determine to what extent the vocational junior business training should be emphasized in each of the several junior high schools of that city.

The general business information course has been very satisfactorily adjusted to the schedules in small as well as in large schools. Almost without exception, those schools that have been devoting one year to this subject expect to retain the present allowance. Ordinarily, as the new subject was introduced and taught by a teacher who had no previous experience teaching this subject, it was offered as a 1-semester course; it is generally lengthened to a 2-semester course in the large and average size schools as soon as the teacher has acquired experience in teaching the subject. Other factors that have contributed to the lengthening of the time devoted to this subject are: The distribution of carefully developed teachers' manuals, practice sets, objective tests, and supplementary materials; and the introduction of special-methods courses in the teacher-training institutions. During the biennium, Philadelphia, Pa., has been planning to expand its 3-semester course in this subject to a 4-semester course.

The dominant interest in the secondary school centers around curriculum revision. One State and many cities, that prior to the past two years had not prepared syllabi for the commercial subjects, appointed course-of-study committees. In other instances very meager outlines for the courses were merely rewritten with very little or no improvement. The reorganization of the curricula and the preparation of syllabi for the various commercial subjects have seldom been based on the findings of research. Although there are a few excellent contributions, there is much evidence of a lack of availability of, or familiarity with, research reports dealing with business occupations, selection and sequence of instructional units, and pupil learning. In fact, the chief value growing out of much of the effort in curriculum revision has been the in-service training obtained by the teachers. The plan used in Indiana and proposed in North Carolina of offering summer-school courses with credit to course-of-study committees should prove beneficial in other States.

In addition to revising the courses of study for the traditional subjects many of the city and State departments of education prepared outlines for recently introduced subjects such as general business science or junior business training, office practice or machine operating, and retail training. Among the outstanding contributions were the syllabi prepared for the States of Indiana, New Jersey, New York, Iowa, and Pennsylvania. Some of the cities that revised, or are revising, their courses of study are: Los Angeles, Oakland, San Francisco, and Pasadena, Calif.; Chicago, Peoria, and Rockford, Ill.; Detroit, and Flint, Mich; Houston and Dallas,

Tex.; Cleveland and Cleveland Heights, Ohio; Kansas City, Mo.; Denver, Colo.; Pittsburgh, Pa.; Tacoma, Wash.; Wilmington, Del.; Louisville, Ky.; Savannah, Ga.; Sioux City, Iowa; Springfield, Somerville, and Revere, Mass.; and Charleston, S. C. In addition the State Department of Education of California issued a bulletin on the objectives and offerings in business education, and the State supervisor of commercial education in Texas prepared a bulletin on the teaching of commercial subjects.

The pronounced upgrading of secondary commercial courses is indicative of the changing rôle of the high school in the business education program. If the upgrading trend of the past 10 years proceeds during the next decade a large portion of the vocational training will have to be done in intensive postgraduate courses. Pursuant to the introduction of commercial subjects in approximately 10,000 high schools and the development of improved personnel management, particularly in the large offices, the upgrading of the commercial courses was the next logical step. Unemployment situations during the past two years emphasized the desirability of promoting the postsecondary courses. The survey of Rutgers University and all recent senior commercial occupation investigations reveal a marked increase in the demand for employees with business training who have had some education in addition to that normally provided in the 4-year high school. In accordance with the findings of these investigations many cities organized intensive postgraduate or intensive advanced courses, particularly in secretarial training. As the courses grew in popularity accounting, machine operating, and retail training were sometimes added. The curricula varied from 5 to 12 months in length. The cities that have showed the best leadership in this development are without exception those cities having high schools of commerce or supervisors of commercial education. In addition to a large number of smaller cities, the following introduced or expanded their offerings in the postgraduate curricula: Chicago, Ill., Detroit and Grand Rapids, Mich., Los Angeles, Calif., and New Orleans, La.

Among other significant changes in the senior high school program are the rapid introduction of secretarial practice courses, and the gradual development of machine operating courses and retail training curricula, all of which are urgently needed. During the period in which the ninth and tenth grade stenographic courses were moved up to the eleventh and twelfth grades it was generally believed that the additional maturity and background training of the pupils would enable the schools to meet the increasingly high requirements of the business positions. Studies of actual attainment in the classroom and analyses of the duties of stenographers were the most

important factors in emphasizing the necessity of advanced transcription and office practice in addition to the regular amount of time devoted to the courses in shorthand and typewriting. In fact, the experience of the placement bureaus indicate that a thorough course in secretarial practice is rapidly becoming one of the minimum essentials for the better types of stenographic positions. The more progressive schools have introduced from one to two semesters of this subject. The editors of all of the business education magazines, particularly the editors of the American Shorthand Teacher and the Rowe Budget, have actively promoted the advanced types of secretarial practice courses.

The high schools have been far more conservative in the introduction of various types of office equipment than in introducing equipment for other vocational curricula. The office equipment companies did not promote courses in machine operating to the extent that the typewriter companies and publishers encouraged the introduction of stenographic and bookkeeping courses. In fact, practically all of the equipment companies found it necessary to maintain schools in connection with their sales offices for the purpose of training operators to meet satisfactorily the employment standards of the local business men. With very few exceptions, commercial teacher-training institutions have not attempted to prepare teachers for machine-operating courses. Well-qualified instructors of such courses are scarce. Each year, however, additional progressive teachers are taking the courses offered by the equipment companies and are obtaining practical experience as operators of the machines during the summer vacations. The local equipment surveys revealing the rapid introduction of various kinds of machines in the offices, together with such studies as A New Conception of Office Practice, by F. G. Nichols, of Harvard University, have been very helpful in promoting courses in this field.

The machine operating courses are in various stages of development. These courses ordinarily begin with the placing of one or more machines in bookkeeping and typewriting classrooms. In this stage the pupil-learning is more accidental than planned. In the second stage one or two semesters of office practice are offered. Due to the limitations on the number and kinds of machines available and the amount of time to be devoted to each machine, the objective is to provide a general knowledge of different kinds of equipment. The third stage involves the organization of a vocational curriculum in machine operating and vocational training on those machines that should be taught to pupils majoring in bookkeeping or stenography. The commercial high school at Providence, R. I., offers majors and minors in machine operating. An outstanding example of the de-

velopment of these courses is at the John Hay High School, Cleveland, Ohio. Such courses broaden most remarkably the potential scope of the business training program and make possible better guidance and placement service.

The retail training program lags far behind other phases of secondary commercial education. The preparation of guidance material based on initial and promotional opportunities in local sales positions is the first essential in breaking down traditional prejudices and in obtaining the confidence of pupils and parents. People generally have not been educated to believe that the retail store offers worthy opportunities for young workers or gives the proper social standing. Comparatively few commercial teachers are prepared by training and business experience to teach retail training courses. In many communities the merchants and school administrators have not been convinced of the possibilities and desirability of training for distributive occupations. As a result, well-developed programs in this field are exceptional even in the large cities. The programs in Los Angeles, Calif., Boston, Mass.,[18] and a few other cities are excellent examples of what full-time supervisors of retail training can accomplish.

The American Vocational Association recognized the need for the general introduction of retail training courses and requested the Federal Board for Vocational Education to make a study of the problems involved. In addition to conducting the study as requested, the latter organization, in cooperation with interested trade associations, prepared manuals for the training of employees in meat markets and grocery stores. A recent study of salesmanship courses in selected high schools was reported by R. G. Walters.[19] Statistics of the Office of Education show that fewer than 500 public high schools offer courses in salesmanship. The indications are that no rapid progress will be made until the national and local merchants' associations take an active interest in improved instruction, more efficient personnel in the stores, and better service of the stores to the communities; and stimulate their members to cooperate with the schools in establishing and maintaining appropriate training programs. Because of the shortage of trained teachers in this field, the development of effective programs may require many years after earnest efforts are made to establish them.

Reports of the past two years tend to minimize the difficulties and praise the merits of cooperative part-time courses for commercial

[18] Rowse, E. J. They Study Merchandising Behind the Counter. Journal of Business Education, 3: 18–19, March, 1930.

[19] Public Schools That Teach Salesmanship. Journal of Business Education, 4: 27–28, 36, September, 1930.

pupils. A study [20] reported during the biennium indicates that a group of cooperative part-time students made as satisfactory, if not more satisfactory, adjustment to their occupations than did a non-cooperative group. Wilmington, Del., broadened its cooperative program to include all commercial curricula and extended the plan from one to two semesters of the senior year. In Boston, Mass., different cooperative plans were in operation in the various schools so that pupils desiring a particular plan could select their schools accordingly. In order to appraise the program in Los Angeles, Calif., a follow-up study of the cooperative students for the past nine years was undertaken. One advantage of the cooperative plan is that it focuses, to a greater extent than any other plan, attention of pupils, teachers, and employers on the necessity of definite vocational objectives and content and on problems of guidance, occupational adjustment, and follow up. Although many communities maintained part-time classes for commercial pupils, only 11 cities in 7 States received Federal aid in 1928 for such classes, in which 1,146 pupils were enrolled.[21]

The high schools of commerce for the past 10 years, particularly during the period covered by this report, have been far more progressive than any other type of organization in introducing improved programs for guidance, placement, and follow up of commercial pupils; in applying the findings of curriculum research by introducing new courses and new curricula, such as machine operating and retail training; in organizing postgraduate curricula; in breaking down the rigid traditional concept of commercial education; and in conveying to school administrators in general the significance of these phases of urban education. In fact, the programs in these schools are many years in advance of those of the cosmopolitan schools comparable in size. Unfortunately much of the literature pertaining to the high school of commerce has been written by persons who did not understand or appreciate the many possibilities of this type of school.

The following statements taken from the 1930 reports of Dr. E. J. McNamara, Dr. Allan Davis, and Walter B. Spencer, principals of high schools of commerce in New York, Washington, D. C., and New Haven, Conn., respectively, indicate some of the possibilities and contributions of the specialized school:

> In the past, academic students have been recommended to business men because of their habits and attitudes, and the commercial-school students have

[20] Arnold, Frank J. A Comparative Study of Educational Results of a Cooperative Commercial Group in Secondary Education. Master's Thesis, 1929. New York University, New York, N. Y.

[21] United States. Federal Board for Vocational Education. Cooperative Part-Time Education. Washington, Government Printing Office, 1928. 35 pp. (Fed. Bd. Bull. No. 130, Trade and Industrial Series, No. 36.)

been recommended upon the skills that have been taught. Neither is sufficient. The high school of commerce offers a much better opportunity to develop these habits that the business man prizes so much, and at the same time produce the skills that make the employee more valuable.

Practically all the subjects that now constitute a part of business education have come through initiative and trial on the part of the business high school. Concurrently with the introduction of new subjects there has been a development of teaching methods which, in the nature of the case, took place first and most thoroughly in the commercial high school.

One practical and vital advantage of the high school of commerce is that it can give more extended and intensive training in commercial subjects than can be given in the regular high school. Only recently, however, have some of these schools seen their opportunity.

A separate school of commerce can usually secure better equipment and more of it than when its budget has to be a part of the general high-school system. In addition to the advantages of supervision, especially trained administrative leaders can be selected as principals.

RECENT SURVEYS OF COMMERCIAL EDUCATION

To obtain a basis on which to make recommendations for developing more appropriate and effective programs of commercial education, many city and State surveys have been made. More studies of this type were completed and were in progress during the biennium than had been completed prior to the 2-year period. Inasmuch as the general city and State surveys of education have not normally included commercial education, the newer type of college-trained commercial teachers have been determined to state the facts regarding the present status and special problems in secondary commercial education and commercial teacher training. One of the motivating forces in the making of these surveys is the realization that the individual commercial teacher is in a rather helpless situation except when certain maladjustments in his field are revealed on a city or state-wide basis. The most unfortunate feature of these studies is that they have been made chiefly by graduate students on their own initiative rather than by or under the direction of agencies that are in a position to bring about desired improvements. In general, these studies contain much criticism and many constructive suggestions for the improvement of business education. The state-wide studies reveal:

1. The commercial courses are dominated by traditional practices borrowed from the private business schools.

2. There is much variation in the curriculum practices including the number of commercial units required for graduation from the commercial curricula.

3. There is a very definite need for broadening the scope of the commercial curricula both in the large and small communities.

4. Except in cities having high schools of commerce and in cities and States having directors of commercial education practically nothing has been done to establish and maintain satisfactory standards in the commercial subjects.

5. Very few schools have adequate equipment for machine operating courses, and very few offer retail training.

6. Only the most progressive schools have established placement and follow-up service.

7. The possibilities of the high-school courses either for vocational or non-vocational purposes have not been perceived, or, if they have been perceived, that perception has not been expressed by an adequate program.

The most comprehensive of all state-wide surveys of commercial education was made in Minnesota.[22] The author states: "The general purpose of this study * * * is to assist in the search for objective and trustworthy data which will serve as a basis for the reorganization and general improvement of commercial education in the public secondary schools." The investigation includes 14 commercial occupation surveys in Minnesota cities, job analyses of office workers, statements of value of the commercial subjects as reported by graduates, preparation of the teachers, and many other important topics. Among the findings are: Commercial education is "of fundamental importance in the organization and administration of public education"; there is increased need for general business courses for all citizens; there is lack of guidance and placement service except in Minneapolis and St. Paul; the commercial teacher-training facilities are inadequate; the local school administrators should provide for closer cooperation between the commercial teachers and business men; and that a State supervisor of commercial education should be appointed.

Among other outstanding state-wide studies of the status of secondary commercial education that were accepted as graduate theses during the past two years are those of commercial education in New Jersey, by L. A. Rice; in Ohio, by Helen Reynolds; in Indiana, by R. C. Sollars; in Tennessee, by J. P. Phillips; in Oklahoma, by R. R. Tompkins; in Montana, by Della A. Young; in Colorado, by A. O. Colvin; and in New Mexico, by H. T. Lehman. In addition, an increasingly large number of state-wide studies investigated curricula and extracurricular problems and the teaching of specific commercial subjects. Some of the leading studies of the latter type were: In office practice in New Jersey, by F. W. Loso; elementary business training in New York State, by Benjamin R. Haynes; salesmanship in Colorado, by Myrtle Boatman; teaching of bookkeeping in California, by G. B. Holmes; teaching of economics in New York State, by R. S. Kidder; and studies relating to typewriting in Indiana and Wisconsin.

State-wide studies of the preparation of commercial teachers, their difficulties, the subject combinations which they teach, business expe-

[22] Weersing, F. J. Reorganization of Commercial Education in Public High Schools. Cincinnati, South-Western Publishing Co., 1929. 154 pp.

rience of the teachers, their salaries, and related topics, were completed recently in Illinois, New Jersey, Ohio, Minnesota, Michigan, New York, North Carolina, Pennsylvania, and Wisconsin. Such studies provide a basis for closer coordination of the teacher training and certification requirements. In addition, a number of regional investigations of the preparation of commercial teachers and of other phases of commercial education were made. A regional study of the facilities for business education, including commercial teacher training, and the availability of the business courses to the population in the Northwest States was conducted by Dean G. F. Cadisch, of the school of commerce and business administration, State College of Washington, Pullman.

A survey of commercial education in Buffalo, N. Y.,[23] revealed that although Buffalo is a large commercial city it was not maintaining curricula preparatory to some of the major types of business positions; it was not graduating annually an adequate supply of potential personnel with business training; it had not made commercial education available generally to the secondary pupils; it had not provided adequate office equipment for instructional purposes; and it had not developed a retail training program. The most urgent of the recommendations was for the appointment of a director of commercial education with an adequate supervisory staff. In addition it was recommended that a series of basic studies be conducted on which to develop the local program; that elementary business-information courses be offered in each of the high schools; and that guidance and placement service be provided. A study of commercial education was made also in Boston, Mass., and another study is in progress in New York City.

CONTESTS IN COMMERCIAL EDUCATION

The predominating type of contest in secondary commercial education provides for the selection in each high school or city of the best talent in shorthand, typewriting, bookkeeping, and frequently other subjects. The winners in the local high schools or regions compete in the respective State contests. Usually the State contest is held under the auspices of the State association of commercial teachers or one of the State institutions which trains commercial teachers.

There is a rapidly growing tendency to question the educational and social values of the traditional contests in commercial subjects. Difficulties of different types arose in their administration. Substitute contests were organized in some States which led to unpleasant situations. Interested persons, as well as committees of teachers'

[23] Malott, J. O. Commercial Education in Buffalo. *In* Report of Buffalo School Survey. Buffalo, Turner & Porter (Inc.), 1931. Ch. vii, pt. i, pp. 170–182.

associations and commercial teacher-training institutions sponsoring the contests, gathered statements of opinion from commercial teachers and high-school principals regarding the advantages and disadvantages and certain malpractices that had developed. As a result, many of the States which had pioneered in the development of the contests discontinued them; in some other States committees were appointed to report on methods of improving them and on the development of a substitute plan which could be used for state-wide supervisory purposes.

The consensus among the leaders is that the contests as now administered emphasize higher standards for those pupils who are likely to become contestants instead of emphasizing satisfactory standards for all. Another example of faulty objectives and administration is that the contests emphasize high standards of attainment in the separate subjects, such as shorthand and typewriting, instead of vocational standards in transcription. As such practices become general throughout the country over a long period of years, they result in the establishment of classroom objectives and procedures that are not in harmony with the best interests of the pupils, the schools, and the local business communities. In this connection some of the professional contests were discontinued in 1930 because the professional championship records had not been materially improved for several years. Most of the equipment companies discontinued granting awards for achievement in typewriting. A growing dissatisfaction among commercial teachers and school administrators regarding contests and the changed attitude of the equipment companies have contributed to the development of the every-pupil or state-wide testing program.

The Wisconsin survey of pupil achievement sponsored by the State Teachers College, Whitewater, is the best example of the replacing of the traditional contests with the new supervisory device. The institution is to be complimented on such progressive leadership. For 10 years that college had sponsored the contests in Wisconsin. In 1929 the committee in charge decided to abandon the contests and to substitute the every-pupil or state-wide testing program. The survey was planned to ascertain the degree of accomplishment which now obtains in each of the several commercial subjects offered in the high schools of the State, with the following objectives in view: (1) To furnish data wherewith any school may rate its work by that of others, (2) to provide a basis for suggesting improvement in accomplishment, and (3) to establish standards commensurate with the requirements of business. Other States adhering to the traditional plan would profit by a study of the advantages of the Wisconsin plan, particularly as regards the poten-

tial supervisory value of the findings. Every-pupil tests in shorthand and typewriting were given in Kansas, and a state-wide testing program in typewriting was conducted in California. The Ball State Teachers College, Muncie, Ind., prepared tests for a state-wide survey in practically all commercial subjects, similar to the survey administered in Wisconsin.

DEVELOPMENTS IN CITY AND STATE SUPERVISION

The greatest need in secondary commercial education is an adequate program of city and State supervision. This fact has been emphasized by every major trend of the past 10 years. The consensus of opinion among the leaders is that each city and State survey of commercial education reveals an urgent need for the immediate appointment of directors and one or more supervisors in the large commercial cities and States. They believe that in many other States one of the high-school supervisors should be selected, as has been done in a few instances, because of his special preparation to assist in organizing business education programs. The percentage of secondary-school principals that are specially trained in commercial education and otherwise qualified, according to the leaders in this field, should bear some semblance to the percentage of secondary-school pupils enrolled in the commercial curricula so that the many urgent problems would receive more and better administrative attention.

Resolutions of the commercial teachers' associations requesting the development of supervisory programs have called attention to the increasingly large number of pupils enrolled in the commercial curricula and an accumulation of problems inherited with the traditional program. The number of pupils in these curricula exceeds the total number in the trade and industrial, home economics, and agricultural curricula. There was but one State director of commercial education in 1920. There were only four in 1930. Other noncommercial vocational curricula had 112 State directors and supervisors in 1920 and 216 in 1930. Approximately the same ratio obtains in the city departments of education. Inasmuch as commercial education has 51 per cent of the vocational pupils and less than 2 per cent of the supervisors, it is, so far as supervisors is concerned, a neglected phase of vocational education.

Commercial teachers generally have a far more difficult task than most other types of vocational instructors. Ordinarily they have more subjects and semesters of subjects to teach; the sizes of the classes exceed those in other vocational subjects; they have been handicapped by a shortage of adequate teacher-training facilities; they find it very difficult to bring about desired changes; they are

responsible not only for training, but for guidance, placement, and follow up of pupils; the requirements of the positions for which they prepare pupils are changing rapidly; and there is a very definite check on the product of the commercial departments. A study of these and other factors reveals that no phase of secondary education has a larger number of problems and receives less supervisory attention. Nevertheless, the leaders are agreed that the pupils, parents, and ultimate employers have the right to expect a type of program and supervision equivalent to that in other vocational fields. The failure to develop supervisory programs results in undue hardships on commercial teachers and postpones the elimination of waste in the traditional program.

More progress was made during the biennium in developing State supervisory programs for commercial education than had been made in the history of this phase of education in this country. A number of cities and States created supervisory positions and immediately developed excellent programs in this field. According to a special report from Dr. Ira W. Kibby, newly appointed supervisor in California, the only apparent way in which business courses can be properly coordinated and adequate norms of accomplishment established is through State assistance. During the first two years of the program in that State many worthy projects were completed:

1. New standards were established for the certification of commercial teachers, including practice teaching and business experience.
2. A series of conferences on business education in the junior college was conducted and a study was made of the percentage of students enrolling in the junior college who enter the universities.
3. A study of the subject and curriculum enrollments in the secondary schools was conducted.
4. A study of standards of accomplishment for school credit was completed.
5. A State-wide typewriting test was administered to 45,000 students.
6. Committees were organized in cooperation with the California Commercial Teachers' Association for the purpose of making studies of student follow up, retail training, commercial arithmetic, and penmanship.

Many phases of the supervisory program in New York State have reference to the Regents examinations. A statement, prepared by Clinton A. Reed, supervisor in that State, indicates:

1. The 3-year commercial teacher-training program was discontinued. A 4-year training program was organized. The new plan provides for the concentration of all State preparation of commercial teachers at the New York State College for Teachers, Albany.
2. The supervisor cooperated with the authorities of the New York City public schools in the revision of license requirements for commercial teachers.
3. The requirements for State high-school diploma in commercial subjects were revised.
4. Programs were prepared for commercial education in small high schools.

5. New materials were prepared regarding objectives, standards, and tests in shorthand, typewriting, bookkeeping, commercial law, and business English.

6. Reading lists for business English were compiled and distributed.

7. Improvements were made in the programs of the commercial teachers' associations.

8. A study was made of the conditions in the private business schools in New York. The supervisor assisted in forming an organization of the owners and managers of these schools.

An excellent example of a newly inaugurated State program for commercial education is in New Jersey. The 1928–1930 report of L. A. Rice, in charge of commercial education in the State department of public instruction, Trenton, shows:

1. The commercial teacher-training curricula in the State Teachers College were lengthened from three to four years and provisions were made for the granting of degrees for the completion of the new curricula.

2. Certification requirements for commercial teachers were raised from two to three years of postsecondary training. The State department announced that after June, 1932, four years of special preparation will be required.

3. The department established for the certification of commercial teachers a requirement of 10 weeks of approved full-time business experience in addition to approved practice teaching.

4. Twelve new courses in principles and methods of teaching commercial subjects, as well as demonstration and observation classes for commercial teachers, were offered for the first time in the summer session at the State university.

5. Extension courses for experienced commercial teachers in different sections of the State were offered during the school years.

6. Every year the director visited classes and conferred with the commercial teachers and school authorities in approximately half of the schools offering commercial curricula.

7. The director organized and conducted county and regional meetings for commercial teachers and annual conferences for the heads of commercial departments in the 28 high schools enrolling 1,000 or more pupils. The director cooperated with the county associations in organizing follow-up studies of the drop-outs and graduates from the commercial departments and assisted in conducting studies for the establishment of county standards. He cooperated with the State association in the organization of State contests.

8. New courses of study were issued for shorthand, typewriting, bookkeeping, and elementary business training. The director organized committees to prepare syllabi for other subjects. He cooperated with local schools in developing local courses of study more closely adapted to their needs.

9. The director conducted investigations of the following topics and reported them chiefly in the series of business education letters issued by the State department of public instruction—practices in the marking of shorthand transcripts and requirements in shorthand and typewriting; achievement in transcription; New Jersey needs in commercial teacher training; separate studies of the preparation of incoming commercial teachers in 1928, 1929, and 1930; the combinations of subjects taught by commercial teachers; and comparison of commercial education in New Jersey in 1928 with the status of it in 1916.

Reports from the 28 city directors indicate that the greatest economy that can be effected in this field is the development of

supervisory programs. In no instance during the past two years was a program discontinued. On the contrary, there was a growing appreciation of the many advantages of such leadership. The report of the director of commercial education in Philadelphia [24] reviews, as does each of his annual reports, some of the progressive steps in the city supervision of commercial education. Selected activities of the director in 1928–29 are:

1. Assisted the local universities in organizing special-methods courses for experienced commercial teachers.
2. Obtained the appointment of two special assistants to provide better supervision.
3. Conducted studies of failures in the different subjects.
4. Inaugurated a retail training program in the continuation schools and expanded the program in other schools.
5. Conducted a study to supplement text material in shorthand.

The accomplishments of the present supervisors, increased enrollments, development of new methods of instruction, and many other factors are creating a new interest in supervision. The best report on the need and training for leadership in this field was prepared by the committee of the American Vocational Association.[25] C. C. Crawford, director of commercial teacher training, State Teachers College, Valley City, N. Dak., and H. I. Good, director, business department, Hutchinson-Central High School, Buffalo, N. Y., analyzing in their graduate theses the duties of supervisors of commercial education, contributed much toward the establishment of definite supervisory programs. Supervisory bulletins, containing reports of special studies, were issued regularly in Philadelphia, Pa., Los Angeles, Calif., and Des Moines, Iowa. The latter city has made outstanding progress in establishing high standards of attainment. In 1930, Clay D. Slinker, director of business education in Des Moines, organized an association of the city and State directors. Mr. Slinker, who is one of the pioneer directors in this field, was elected president.

THE PRIVATE BUSINESS SCHOOLS

Recent developments indicate that the private business school faces a situation in which market research in its own field is of utmost importance. Fewer pupils are enrolled in these schools than at any time since 1910. More private business schools were discontinued

[24] Philadelphia (Pa.) Board of Public Education. Division of Commercial Education. Report for the year ended June 30, 1929. Philadelphia, Board of Public Education, 1929. 78 pp.

[25] United States. Federal Board for Vocational Education. Training for Leadership in Commercial Education. Report of the National Committee on Advanced Courses in Vocational Education. Washington, Government Printing Office, 1929. 36 pp. (Fed. Bd. Bull. No. 138, Commercial Ser. No. 8.)

than were organized from 1925 to 1929. Thirty-four per cent of these schools in operation at the former date had been discontinued by the latter date. Of those schools that had been organized prior to 1925, 48 per cent reported decreases in their enrollments during the 4-year period. Yet some of the schools have grown very rapidly. In fact, the average enrollments in this type of school increased from 254 in 1925 to 276 in 1929. To a very large extent the weaker institutions have been eliminated and the better managed schools have strengthened their positions. These and other factors emphasize the desirability of knowing under what conditions such a school can be established and operated successfully, as well as knowing the causes and signs of weakness in established institutions.

During the past 10 years the extension of the business education programs in the junior and senior, continuation, vocational, and evening schools has enabled these institutions to meet the needs of many of the typical groups of pupils that formerly attended the private business schools. Several thousand additional high schools have introduced commercial courses. More than 60 per cent of the junior colleges and more than half of the colleges and universities have introduced business curricula. Each refinement in the offerings of the secondary and higher institutions to meet the needs of additional groups of pupils tends to reduce the percentage of such groups that are likely to attend private business schools.

In its effort to operate with profit the private business school is very rapidly developing intensive courses in secretarial training and accounting for high-school graduates. Such courses are not generally offered by other schools, although an increasingly large number of pupils annually desire business training in addition to a complete high-school course, and although there is an increased demand for the graduates of the advanced type of course. Data collected during the biennium reveal that in one State 95 per cent, and in many of the States as high as 75 per cent, of the pupils enrolled in private business schools are high-school graduates. Nationally, two-thirds of their pupils are graduates from high schools, and many have had some collegiate training. In fact, the outstanding development in these schools is the increase in the percentage of their pupils who are graduates of secondary schools.

The financial success of some of the larger and older schools that accept only high-school graduates tends to promote an upgrading process but creates additional problems. Much of the pioneering in the raising of entrance requirements has been accomplished. Many of the schools discontinued the soliciting of pupils enrolled in high schools and sought only, or a higher percentage of, graduates of secondary schools. One of the associations in this field conducted

during the past two years a campaign to encourage pupils to complete the academic course in high school before attending a private business school for the business training. Among the chief factors in the effort to popularize the private business school as a postsecondary institution are: The raising of the requirements for office positions, the trend toward raising the compulsory school ages, the increasingly large number of high-school graduates desiring intensive postsecondary training in business subjects, the desire to provide a higher type of graduate for more satisfactory placement in business, the inability of the private business schools to meet the standards set up by the accrediting associations among the secondary schools; and the probable inability of the private business school to compete profitably in the future against either the secondary or collegiate institutions. While this movement tends to eliminate the weaker types of pupils and schools it decreases the number of prospective students, thus forcing the private business school to study the extent to which postsecondary courses and each of a large number of developments in the secondary schools affect enrollments and costs. Furthermore, it forces these schools to study more carefully the size and characteristics of population units that can profitably support private business schools of different types.

Leadership among the private business schools, which is represented chiefly by the National Association of Accredited Commercial Schools, seeks to raise the standards of, and obtain recognition for, these schools. During the past two years this association held many regional conferences for the purpose of eliminating objectionable practices and improving administration in general. Through closer cooperation they have sought to raise the requirements for teachers, lengthen the courses, and provide better equipment. Prior to the biennium, the associations, as well as the individual schools, placed much emphasis on the obtaining of recognition from the State departments of education and the established accrediting agencies. These efforts have been continued, but available data show that more of the private business schools were taken off the lists of commercial teacher-training institutions approved by State departments of education than were added during the period covered by this report. Some of the States have eliminated all of the private business schools from their lists of approved teacher-training institutions. Although a few of the private business schools have sought the approval of the major accrediting associations of secondary and collegiate institutions, available records show none obtained such approval. During the past two years many of the private business schools have adver-

tised that their courses were approved directly or indirectly by the Office of Education, but this office does not approve business courses in these schools.

A minority of the private business schools sought, and in a few cases obtained, the privilege of granting degrees normally offered only by 4-year colleges and universities which maintain arts and science departments as well as business departments. The larger and older schools taking the lead in this endeavor are, in general, those that enroll only high-school graduates and maintain courses at least 12 months in length. Due to the social and professional significance of the business education degrees, the leaders in business education hold that the degree should be granted only after completion of four years of postsecondary training, including training in the arts and sciences. These leaders have been free in expressing themselves during the past two years to the effect that appropriate diplomas should be granted for the completion of postsecondary curricula devoted entirely or almost entirely to technical business courses. Many of the leaders in the private business schools are opposed to the tendency to seek the privilege of granting collegiate degrees.

THE JUNIOR COLLEGES

Although there were fewer than 300 junior colleges, the terminal functions which they are serving force attention to a very unfortunate break that exists in most community and State programs for commercial education. The upgrading process which is taking place in the office and store occupations emphasizes the necessity of providing postsecondary offerings for those who do not expect to graduate from college. The high schools do not ordinarily offer intensive postgraduate courses for commercial students. Colleges and universities have so upgraded their offerings that comparatively few of these institutions offer terminal courses on the junior college level. In actual practice, therefore, pupils who desire a college education for business usually pursue the academic or general curricula in the secondary schools in order to comply with the college entrance requirements. However, a comparatively small number of pupils in the ninth and tenth grades ever reach the junior and senior years of a university at which time the vocational commercial subjects are made available.

Until recently the junior college has not been an important factor in the program of education for business. Recent studies emphasize the fact that the need for terminal commercial curricula on the junior-college level is many times greater numerically than the need

for 4-year curricula in the collegiate schools of commerce. As a result, an increasingly large number of junior colleges are offering terminal curricula for commercial students. Data were gathered in 1930 regarding the offerings of 241 of the 286 junior colleges listed in the Office of Education Directory. The study reveals that 137 offer a total of 206 curricula in business education. Some of these institutions offer from two to five curricula in this field. Almost without exception, the junior colleges that offer commercial subjects maintain one or more terminal curricula for commercial students. Furthermore, practically all of these institutions that offer curricula other than the general or academic offer one or more commercial curricula.

Not only do the accounting and secretarial curricula predominate but in most junior colleges the commercial subjects are limited to these fields. A total of 109 of these schools offer accounting and 96 of them offer curricula emphasizing this subject. Shorthand, typewriting, and secretarial subjects are offered by 101 of these institutions and 79 maintain curricula in secretarial training. Although 25 offer courses in marketing and salesmanship, only 3 offer curricula in retail selling or store service. Of the 241 schools, 187 offer economics; 38 business organization and management; 5 machine operation; 5 evening courses; 1 offers part-time training; and none offers courses by correspondence.

The junior colleges are passing through various stages of developing appropriate business curricula. The developments are quite similar to those in commercial education in the junior high schools. Commercial subjects, textbooks, curricula, and teachers have been borrowed from the high schools and colleges. The first stage of development in the junior colleges was characterized by the extension of the secondary commercial education program and the introduction from higher institutions of the traditional courses in economics. The chief effort to-day, however, is directed toward upgrading secretarial training and other terminal curricula rather than toward radical changes from the traditional content and organization of secondary education. This upgrading trend is in harmony with the growing demand for persons with junior-college standards of business training. Accompanying the latter trend there is a tendency to drop foreign language and preengineering mathematics as requirements in the terminal curricula. Approximately one-half of the schools offering business subjects have introduced background courses in business. Only 10 junior colleges have entered the stage of developing junior technical curricula in real estate, insurance, and similar subjects.

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Analyses of the trends and present practices in the junior colleges emphasize the desirability of basing the business education studies on local needs. Follow-up studies should be made to clarify the objectives for both the terminal and continuing functions. Studies of the wishes of the students and tables of data regarding drop-outs would provide additional information on the need for intensive 1-year or 2-year terminal curricula. Studies of the employment needs would show the extent to which vocational curricula should be offered in insurance, banking, real estate, commercial art, and other special fields, as well as in secretarial training, accounting, and salesmanship. These and other types of studies [26] are necessary for adjusting junior-college programs to community needs.

TRAINING AND CERTIFICATION OF COMMERCIAL TEACHERS

The outstanding development in commercial teacher training during the past 10 years has been the rapid elimination of commercial teacher-training curricula from the private business schools and the equally rapid development of such curricula in the teachers colleges and universities. At the beginning of the decade more students were graduated annually from these curricula in the private business schools than from such curricula in all other types of institutions combined. In many States practically all, and, in most States, a large portion, of the training of commercial teachers was provided by the private business schools. Although the curricula of these schools did not include the arts and sciences, background courses in commerce, and professional courses in education; these schools taught the traditional commercial subjects and were very active in seeking teaching positions for their graduates who could meet the meager requirements for special certificates to teach commercial subjects.

Recent developments in different sections of the country indicate that the curricula in this field are passing through four stages of development. The first stage, which is rapidly disappearing, is that in which the private business schools provide the postsecondary training necessary to obtain a very low grade of special certificate. The second stage is that in which the normal schools and teachers colleges introduce the curricula. In this stage the private business schools continue to train more commercial teachers than do other types of institutions. The third stage is characterized by a rapid elimination of these curricula in the private business schools and the equally rapid development of professional curricula in the

[26] Barnhart, E. W. Making Business Curriculums for Junior Colleges. *In* Second Yearbook. Eastern Commercial Teachers Association, 1929. pp. 67–82.

teachers colleges and universities. In the third stage, which is now most evident, there has been a tendency for the teachers colleges to specialize in the undergraduate program and for the universities to emphasize graduate study. The fourth stage is the one in which the leaders have the greatest hope and which is developing rapidly. In this stage those institutions which train secondary teachers of different subjects, and offer graduate as well as undergraduate instruction, will predominate.

The many new problems in secondary commercial education are forcing the higher institutions to take more interest in the training of commercial teachers. The colleges and universities in most States had refrained from introducing commercial teacher-training curricula so long as the private business schools were recognized by the State departments of education as agencies for the training of commercial teachers. The higher institutions which had accepted the responsibilities for training teachers of other secondary subjects had been aware of a pronounced tendency to let secondary commercial education and commercial teacher training drift. The teachers colleges had been unable to provide enough commercial teachers. Naturally the private business schools assumed no responsibility for seeking improvements in this field. Many such factors warranted investigations into the status and growing problems of commercial education. These investigations indicated clearly that any constructive long-term program would be dependent upon an adequate supply of professionally trained teachers and on the raising of certification requirements. Graduate research studies by students in the university schools of education revealed that commercial teachers had less professional training and lower certification standards than teachers of other secondary subjects. Nevertheless, continuous efforts of the leaders to obtain the introduction of commercial teacher-training curricula in higher institutions that train teachers of other secondary subjects have met with many administrative and academic prejudices. The test encountered during the biennium by some progressive university schools of education contemplating the organization of curricula in this field was whether or not its administrative and instructional personnel could lay aside its traditional prejudices and recognize the urgent need.[27]

Unfortunately, some of the commercial teacher-training curricula organized in universities during the past two years have been so designed that they penalize prospective commercial teachers and

[27] Malott, J. O. Administrative Control of Business Teacher Training in Colleges and Universities Maintaining Schools of Commerce and Education. *In* Third Yearbook Eastern Commercial Teachers' Association, 1930. pp. 199–204.

that the requirements for graduation are higher than are necessary to obtain a license to teach commercial subjects within the respective States. In some instances approximately five years of commercial teacher training is required for the baccalaureate degree which is granted for four years of training to students pursuing other teacher-training curricula; many institutions require the essential technical subjects but grant only partial or no credit for them; and a few provide for courses to be taken in institutions that can not meet even the standards set up by the major accrediting associations for the secondary schools. Curricula designed on such fundamental falacies have practically no chance for success even though college degrees are granted. Commercial teacher-training curricula can not, on a competitive basis, obtain and hold students if the curricula are longer, more difficult, and have higher entrance or higher graduation requirements than other curricula the completion of which entitle the students to licenses to teach commercial subjects.[28] In the history of commercial teacher training there are many examples of universities that made similar errors. Almost without exception, the curricula failed to attract students. Commercial teachers refuse to be penalized but instead desire that the professional requirements for license be coordinated with carefully established requirements for graduation from the teacher-training curricula.

Some of the criteria used in selecting additional institutions in which to organize commercial teacher-training curricula, particularly as regards the present trend toward the fourth stage of development of these curricula, are:

1. The institution should be coeducational or at least both men and women should be eligible for enrollment in this curriculum.

2. The institution should be one that is located in or near a commercial and industrial center so as to make possible a business experience requirement for graduation from the curriculum and to provide adequate facilities for practice teaching with a minimum of administrative and other problems.

3. The institution should be one that offers arts and science courses, professional courses in general and vocational education, and background courses in commerce to reduce the cost of introducing the curriculum and to avoid duplication, but at the same time to provide prospective teachers with a background that is equivalent to that provided for teachers of other secondary subjects.

4. The institution should be one that offers the content courses for credit for entrance into, and graduation from, the curriculum because it is fundamental not only that the prospective commercial teacher should not be penalized for obtaining necessary training but that the content courses be presented in such a way as to give the best possible direction to the method of ultimate presentation in the secondary schools.

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[28] Rice, L. A. Survey of Admission Requirements of Business Teacher-Training Institutions. *In* Third yearbook. Eastern Commercial Teachers' Association, 1930. pp. 193–198.

5. The institution should be one in which the head of the commercial teacher-training division will have immediate supervision over the content courses because, using bookkeeping for an example, collegiate courses in accounting should not be substituted for the secondary content but should be in addition to the secondary content.

6. The institution should be one that offers graduate, undergraduate, and summer courses and probably extension courses for the purpose of building a long-term program for both preparatory and extension services.

Current discussions on the specialization of function in the teachers colleges and universities place a new emphasis on factors in the present and probable future status of commercial teacher training. The chief advantage in maintaining the curricula in the teachers colleges is that the commerce department is relatively independent and free from administrative decisions colored by academic prejudices. The outstanding disadvantage is that many of these schools are designed primarily to train elementary teachers, thus frequently depriving the commercial teachers of the benefits of background courses normally provided for the teachers of other secondary subjects. Furthermore, many teachers colleges are located in small communities. Because of the belief that commercial teacher-training curricula should be offered by the universities some teachers colleges refused to organize, and others refused to expand, these curricula. A study conducted by the Office of Education at the request of the Eastern Commercial Teachers Association, and published in the 1930 proceedings of that association, reveals that the greatest handicaps of these curricula in the colleges and universities are the complex administrative routine, academic opinions, and the ease with which some institutional committee or administrator can destroy the effectiveness of the program. The most hopeful phase of the discussions on this point relates to the many advantages of maintaining both the undergraduate and graduate programs in the same universities. It is obvious also that the organization of such programs will require much promotion.

Although the trend is toward developing commercial teacher-training curricula in the universities, the teachers colleges are not only carrying the burden of undergraduate training but some progressive teachers colleges are assuming many of the responsibilities of a State program for commercial education. This is particularly true in States that do not maintain State directors in this field. Not only have some of the teachers colleges made much progress in expanding and improving their facilities to meet the increased demand for commercial teachers but a few of them are conducting state-wide studies and special research projects for the improvement of commercial edu-

cation, conducting annual conferences on current problems, issuing bulletins for professional unity and growth, conducting State contests and every-pupil tests, cooperating with the State departments of education in the revision of the State courses of study, and rendering many other types of service to the State.

Among the State teachers colleges that have developed noteworthy programs for professional leadership within the respective States are those at Whitewater, Wis., Indiana, Pa., Greeley, Colo., and Muncie, Ind. The following are extracts from the 1930 report of the Ball State Teachers College, Muncie, Ind.:

> The college cooperated with the State department of education in the revision of the commercial courses in the State course of study. Much of this was done in seminar courses under the supervision of the faculty.
>
> A state-wide survey in the teaching of typewriting, instituted by this department, was used by Vernal H. Carmichael of the faculty, during leave for graduate study, in arriving at conclusions which have served as a means of analyzing the typing situation in Indiana.
>
> The Ball State Commerce Journal, a journal devoted to the interest of commercial education in Indiana and elsewhere, made its appearance November, 1929 * * * It contains articles dealing with research and methods in the field of commercial education.
>
> A conference of commercial teachers is held at this college each February for the purpose of discussing outstanding problems. * * *
>
> The annual Indiana State commercial contest is sponsored by the commerce department. This feature has created an interest in commercial education which has raised the standard in the high schools.
>
> The faculty of the commercial department prepared test questions of the objective or new-type examination in bookkeeping, shorthand, and typewriting which were used in a state-wide testing program. * * *
>
> Demonstration classes for prospective commercial teachers were organized at the Burris Demonstration School in the fall of 1930. * * * Directed student teaching is administered in the city schools, since it is not intended to interfere with the work of the demonstration teacher in the laboratory school.

The most progressive steps in the certification of commercial teachers during the past two years were taken by the State departments of education in California and New Jersey. As the result of informal studies of the duties of the commercial teachers, and what bodies of knowledge and skills were necessary to assure greater probability of success, new standards for certification were established. In addition to requirements regarding total amount of education, amount and nature of professional courses in education, background courses in commerce, and courses in the content and methods of teaching commercial subjects, the State department in California requires both practice teaching and business experience in the major fields for which the candidate is seeking a license. In

New Jersey a requirement of 10 weeks of business experience is made. Various attempts have been made by commercial teacher-training institutions to set up business experience as a requirement for graduation. These developments are in harmony with the trend toward setting up job proficiency as a requirement in the certification of commercial teachers who are supposed to prepare pupils to meet specific standards of vocational effectiveness. Des Moines, Iowa, and a few other cities have established similar standards for eligibility for appointment as commercial teachers.

During the biennium many investigations were made regarding the supply and demand of commercial teachers, preparation of the present teachers, difficulties they experience in teaching, and similar topics. The greatest shortage of collegiately trained teachers of secondary subjects exists in commercial education. Although many of the States do not maintain any curricula for the training of commercial teachers, there are very few States that graduate annually as many as 50 per cent of the commercial teachers needed in the respective States. Some of the leading commercial and industrial States graduate less than 30 per cent of the number needed. In the studies of supply and demand the units of supply of commercial teachers are: Those teachers having from one to five years of postsecondary training; teachers who have had no content and methods courses to those who have had no postsecondary training except in technical subjects; and those who have had background courses in education and commerce, practice teaching, and business experience, to those who have had none of these courses.

The State of Pennsylvania made outstanding progress in expanding its facilities for commercial teacher training during the past two years. For more than 10 years this State had centered these curricula in one institution, so far as the State institutions were concerned. This institution was able to graduate only a small percentage of the number of commercial teachers needed annually within the State. The growing demand and geographic distribution of its students made it necessary not only to enlarge the facilities of the State Teachers College at Indiana, Pa., but to establish an additional curriculum at the State Teachers College, Bloomsburg. Furthermore, the Universities of Pennsylvania and Pittsburgh organized undergraduate and graduate curricula. Nevertheless, the leaders are much concerned as to whether or not even with these additional facilities they will be able to graduate annually enough commercial teachers to meet the needs of the State. Progressive administrators seeking to comply with the growing demand for collegiately trained commercial teachers brought about significant developments at the

Universities of Michigan, Kentucky, Denver, and Southern California; Ohio State, Columbia, Rutgers, and New York Universities; the College of the City of New York; and North Carolina State College of Agriculture and Engineering.

One of the most significant developments is the rapid increase in the number of commercial teachers who are working on graduate degrees and, as a consequence, the institutionalizing of research in commercial education. The number of graduate theses in progress in commercial education during the biennium approximated the total number that had been accepted prior to this period. In fact, the major portion of research in this field is made in connection with graduate theses and dissertations. Each study gives added impetus to the discussion of important problems. Some institutions that are very active in the promotion of graduate courses for secondary commercial teachers are: Columbia, Harvard, New York, and Indiana Universities; Universities of Chicago, Pittsburgh, and Southern California; the State University of Iowa; and the State Teachers College, Greeley, Colo. Columbia University, in particular, has developed demonstration courses, advanced courses in methods, and research for experienced teachers in the summer school.

Some other activities are noteworthy. Members of the National Association of Commercial Teacher Training Institutions at the 1930 meeting were in substantial agreement that business experience is an essential part of the preparation of commercial teachers. Directed teaching, a study of which was made by E. W. Barnhart for the Eastern Commercial Teachers Association,[29] was favored at a number of State meetings of commercial teachers associations. New York University published extracts of research in commercial education that had been conducted in connection with graduate training at that university. Additional colleges and universities began summer courses for commercial teachers which frequently are preliminary steps toward the organization of full-time curricula. There is unanimous agreement among the leaders that although the privately controlled institutions are at liberty to elect their objectives, the State institutions training secondary teachers should offer commercial teacher training at least in those States in which there is a shortage of commercial teachers. Lastly, there is a growing realization among the leaders that satisfactory dovetailing of the requirements for graduation from the training curricula and requirements for certification demand closer cooperation between the training institutions

[29] What Is and Should Be the Organization and Administration of Directed Teaching in Business Teacher-Training Institutions. *In* Third Yearbook. Eastern Commercial Teachers' Association, 1930. pp. 205–20.

and the certifying agencies. The most unfortunate feature of the failure generally to provide adequate commercial teacher-training facilities is that the failure affects directly the vocational efficiency and hence the vocational happiness of many millions who begin their careers in stenographic, bookkeeping, and clerical types of positions.

COMMERCIAL TEACHERS' ASSOCIATIONS AND CONFERENCES

Prior to the biennial period, associations of the secondary commercial teachers limited their activities chiefly to the conducting of conferences and pupil contests. During the past two years, under stimulus of a new type of leadership, the associations have broadened the scope of their activities. The leaders believed the lack of adequate city and State supervision to be their outstanding problem. After carefully analyzing the need for supervision in their field, one national and six State associations went on record requesting that State directors of commercial education and assistants be appointed in the respective State departments of education. In some States, committees were appointed to make intensive studies of the need for supervision, to meet with the State superintendents of public instruction, and to call attention to what the committees believed was an unbalanced program for supervision of vocational education.

Due largely to the lack of State supervisory programs for commercial education, the associations in this field are initiating investigations for the improvement of teacher training and secondary education. The Commercial Teachers' Association of North Carolina, in cooperation with the State department of education, completed in 1930 a study of the preparation of the commercial teachers. As a result of this study, one of the State universities announced its intention to establish the first commercial teacher-training curriculum in that State. In Virginia, the association is conducting a 5-year series of state-wide studies similar to those started recently in Iowa. Beginning in 1928 a study was made of the commercial teachers of Virginia, and in 1929–30 a state-wide commercial occupation survey was undertaken. Other types of activities of the latter association bear directly on its objectives, some of which are: To establish higher standards for commercial teachers; to look forward to the appointment of a State director of commercial education; to secure better college entrance recognition for commercial subjects; to make a study of business needs; and to cooperate in the revision of the course of study.

The Eastern Commercial Teachers' Association in 1928 began issuing a series of carefully planned yearbooks. The first three are devoted to the functions of business education, curriculum making in this field, and administration and supervision. The fourth yearbook, which has been announced for 1931, will deal with modern methods of teaching business subjects. In issuing these yearbooks, this association has assumed professional leadership among the commercial teachers' associations. For many years there has been a pronounced need for such leadership and professional group activity. The significance of this leadership is evidenced by the rapid growth in the membership of the association and the increasing demand for the yearbooks. The National Commercial Teachers' Federation and the Southern Commercial Teachers' Association began during the biennium to issue quarterly publications containing proceedings of the annual meetings.

The research conferences on commercial education called annually by the State University of Iowa have contributed much toward the promotion of research in this field. They are the only conferences devoted entirely to reports and criticisms of research studies and suggestions for additional investigations. An effort is made each year to obtain reports on the outstanding research studies recently completed. The topics discussed concern investigations of community needs, status of commercial education in the cities and States, commercial teacher-training problems, methods of teaching the various subjects, standards of attainment, placement, follow up, and other important problems. The conferences, as well as the distribution of the proceedings, are urgently needed and greatly appreciated.

Considering the lack generally of investigations of the need for college-trained personnel in different kinds of business and the fact that the higher institutions have upgraded their objectives, the 1928 and 1930 programs of the American Association of Collegiate Schools of Business were particularly appropriate. The former meeting was devoted largely to the purposes of higher business education; the latter emphasized more than usual the importance of guiding and training the students with particular reference to the nature of the initial opportunities open to the graduates. The development of follow-up programs to assist the graduates during their first years of business was discussed. Increased portions of the recent programs have been devoted to reports of objective studies of the problems of higher business education. This tendency is indicative of the feeling that facts should replace opinions in the development of business curricula. For the promotion of research in business problems the association published lists of research projects of member schools,

and discussed the function and administration of college bureaus of business research.

The first International Congress on Commercial Education since 1913 was held in Amsterdam, Holland, in 1929, under the auspices of the Netherlands Government and the International Association for Commercial Education. This was the eleventh such conference since 1886 but the first one at which the Government of the United States was officially represented. Of the 750 official delegates from 33 countries, 8 represented the United States. The congress proved to be so valuable that the two largest commercial teachers' associations unanimously approved American participation as planned by the United States Commissioner of Education and urged that official delegates be sent to the next congress which will be held in the summer of 1932 at London, England. Problems in both secondary and higher education for business will be discussed at the next congress. An American chapter of the International Association was formed tentatively by the American delegation in Amsterdam and later made a permanent organization, of which Dr. John R. Gregg was elected president.

Among other leading conferences were those called by New York University and the State Teachers College, Indiana, Pa., in connection with the dedication of additional facilities for the training of commercial teachers. The National Association of Commercial Teacher Training Institutions devoted one of its meetings entirely to technical subjects to be included in the commercial teacher-training curricula. In general, State and regional associations are very rapidly formulating more practical programs. The Office of Education and the Federal Board for Vocational Education have urged continuously the development of long-term professional programs by the State, regional, and national associations, and the sectional groups of the conferences called by the larger schools of education. Next to the commercial teacher-training institutions, which are doing much toward the remaking of secondary commercial education, the hope of developing group activity to solve the many problems continues to rest largely with the commercial teachers' associations.

UNIVERSITY EDUCATION FOR BUSINESS

University education for business has grown far more rapidly than carefully developed programs have been organized. Inasmuch as business is the dominant activity of the twentieth century, it is only natural that training for business leadership should become a very significant function of the university. During the past 10 years, in

the course of which college business education has had its greatest development, enrollments increased from 17,000 to 70,000. The number of students graduating annually from the business curricula rose from 640 to 6,948, or from 5 to 52 graduates for each million of population in this country. Colleges of commerce increased from 60 to 95, and 31 of the 33 university bureaus of business research were organized. In fact, higher education in this field has grown so fast that the energies of the leaders have been largely absorbed in providing facilities for the students instead of making investigations regarding objectives and curriculum practices. Dr. Ralph E. Heilman in 1928, in addressing the tenth anniversary meeting of the American Association of Collegiate Schools of Business, which is the only accrediting association in this field, said: "The time is ripe for a reexamination and revaluation of the objectives."[30] Dr. L. C. Marshall, in a new book on business education, states: "In the period of hectic growth, time was not always taken to formulate objectives."[31]

The greatest responsibility confronting the university schools of commerce is that of measuring and analyzing the need for postsecondary training for initial and subsequent positions in the respective industries and States. During the biennium there was an increased willingness to discuss the steps in arriving at a clearer concept of the objectives. The 1928 meeting of the deans of these schools was devoted almost entirely to discussions of the objectives and to what business expected from graduates. The potential forces in establishing more appropriate objectives and programs are the university bureaus of business research and the successful business men who are accepting positions in the colleges of commerce. Recent investigations and discussions reveal that some of the factors that have delayed progress in analyzing and measuring the objectives are:

1. Pressure of university traditions pertaining to professional training, particularly as regards the stating of the objectives in terms of "training for the high executive positions" and the organizing of the curricula.
2. Growing desire to upgrade the level of the business-training program, sometimes regardless of what was happening on the lower postsecondary levels.
3. Absence of graduate theses on higher education for business and the slowness of the research agencies in the college schools of commerce to use research techniques in building the training programs.
4. Difficulty of conducting the basic curriculum studies in a State or industry.
5. Dominance of the pioneers and the "present-practices approach" to curriculum building.
6. Fixed ideas of the economists.
7. Rapid physical growth of the facilities.

[30] A Revaluation of the Objectives of Business Education. *In* Proceedings of the Tenth Annual Meeting of the American Association of Collegiate Schools of Business, 1928. New York, Ronald Press Co., 1928. pp. 1–7.

[31] The Collegiate School of Business. Chicago, University of Chicago Press, 1928. p. 17.

S. The lack of a philosophy that would give direction to the various steps in scientific curriculum building.

The report on business education in the land-grant colleges and universities[32] marks a distinct break with all previous reports in this field. The investigation, which was based on a carefully prepared 57-page questionnaire, dealt with such items as state-wide planning of business education, controlling factors in the establishment and development of the curricula, problems of guidance and placement, staff members, equipment, and administration. No report on higher education for business contains so much constructive criticism of present administrative and curriculum practices or emphasizes so much the necessity of educational research for scientific curriculum building and administration. Some of the findings of this investigation are: (1) Those factors that should have controlled the establishment and development of business curricula have not operated to any great extent; (2) the institutions have not made objective studies of the demands of the business world for special types of training; (3) the schools, almost without exception, have not organized curricula to meet the needs of those students who can not remain at the university for four or more years; (4) the guidance, placement, and follow-up services are not well developed; (5) and none of these schools maintains cooperative part-time training, and only three require business experience for graduation.

The first comprehensive treatise on higher business education in general in this country[33] was prepared by James H. S. Bossard and J. Frederic Dewhurst, of the Wharton School of Finance and Commerce of the University of Pennsylvania, Philadelphia. Inasmuch as the Wharton school—the first of its kind in the United States—was organized in 1881, the commerce faculty and dean desired a thorough investigation of the half century of progress in this field. The report, which is based on a survey of 1,670 of the 5,751 commerce graduates of that institution and on a careful review of other investigations, contains a masterly analysis of many problems ranging from supply and demand of collegiately trained personnel to the organization and administration of business curricula. A report[34] prepared at Harvard University outlined 20 years of progress of its

[32] Malott, J. O., *and* Matherly, W. J. Commerce and Business. *In* Survey of Land-Grant Colleges and Universities. Washington, Government Printing Office, 1930. Ch. ii, vol. ii, pp. 39–111. (Office of Education. Bulletin, 1930, No. 9. 2 vols.)

[33] University Education for Business. Philadelphia, University of Pennsylvania Press, 1930. 573 p.

[34] Donham, Wallace B., *and* Foster, Esty. The Graduate School of Business Administration, 1908–1929. *In* The Development of Harvard University Since the Inauguration of President Eliot, 1869–1929. Ch. xxxiii. Cambridge, Harvard University Press, 1929. pp. 533–48.

graduate school of business administration, which was organized in 1908.

A very high percentage of the institutions increased their offerings and some obtained new buildings, research laboratories, and other facilities. A new school of merchandising was opened at the University of Southern California in 1929. The schools of commerce at the University of Alabama, the University of Georgia, and Harvard University moved into new buildings. At Ohio State University one of the outstanding needs, according to its 1929 report, was for enlarged building facilities—the present building having been outgrown before it was occupied. The Universities of Alabama and Georgia established bureaus of business research. Oregon Agricultural College and the University of Pennsylvania organized new courses in business research. Reports from the Universities of California, Denver, Texas, and Chicago reveal plans to extend graduate courses and the research program. The latter institution tentatively approved a 3-year program in business to be built on the program of the junior college.

Among other noteworthy developments, business experience, which has been a requirement for some time at Cornell and Boston Universities, was made a requirement for graduation at the Universities of Buffalo and North Carolina, and at Harvard, Washington, and St. Louis Universities. A large number of universities arranged for advanced students, particularly in accounting, to obtain business experience for which credit was granted. New York University, through the cooperation of foreign governments, made a special effort to build a library of literature on foreign investments, and Harvard University is developing a special library on finance, banking, and tariff. The latter institution began in 1928, and has continued, to offer certain summer school courses exclusively for business men. Dr. W. J. Donald made a nation-wide study of training methods used by corporations in inducting college graduates into their employ,[35] and W. S. Gifford reported an excellent study of 3,860 college graduates employed in a large corporation.[36]

CONCLUSION

Regarding business education's contribution to better citizenship in a democracy, the leaders find that just as the World War taught us to emphasize health and physical education, the world-wide economic

[35] Cooperation Between the University and Business in Training and Placing the College Man. Journal of Business (University of Chicago), 3 (Pt. 2): 6–31, October, 1930. pp. 6–31.

[36] Does Business Want Scholars? Harpers, 156: 669–74, May, 1928.

depression reveals the necessity of providing at least elementary economic and general business information for all citizens. Regarding vocational training, the leaders are convinced that the organizing of local committees of business men and teachers as has been done in many universities and in the secondary schools of Boston and Baltimore is a progressive and commendable step; and that, regardless of how much effort business instructors expend studying objectives and procedures, the cooperation of business men, probably through national and local advisory committees, is essential to the establishment and maintenance of satisfactory business training programs.

The greatest potential force at the close of the decade is the movement toward scientific curriculum investigations, involving a determination first, to measure and analyze the needs for business training and, second, to improve teaching procedures. Too much encouragement can not be given to those progressive teachers who are zealous to promote through the application of research more appropriate and effective training programs. Other promising features are: The university schools of education are showing an increased interest in the problems of commercial teacher training and secondary business education; there is a growing tendency particularly in the larger cities to diversify their secondary training programs (it is believed that the 1930 census data will stimulate this development); and there are indications that the success of the present supervisory programs, the urgent need for additional supervisors, and the resolutions of the State associations on this topic, may result in the organization of many supervisory programs for commercial education.

Some phases of the business training program that are deserving of increased attention are: (1) There is no experimental school in business education although such schools with competent faculties should be organized for each of the different types of institutions offering business training; (2) the recently created collegiate bureaus of business research devote practically all of their time and effort to business problems (with very few exceptions they have not developed programs of research in business education); (3) there is a wide breach between present curriculum practices in general and the more effective practices that have been developed in high schools of commerce and in communities having supervisors; and (4) the present upgrading trend in the universities together with the slowness in organizing postgraduate courses in the secondary schools enlarges the traditional gap between secondary and higher business education.

The growth of American business in size and complexity, as well as the increasing ramifications of international trade, requires the best professional training that can be devised. The need is for a continuing, capable leadership trained in the social implications and technical phases of business. Such leadership is most exacting in its requirements and must be supported by well-trained personnel on each of the occupational levels in different kinds of business positions. It is obvious that further progress in improving the training program depends on research and on cooperation between the leaders in business and in education for business.

CHAPTER VI

HOMEMAKING EDUCATION

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Contents.—Introduction—I, *Present trends*—A, Contributions rendered—B, Philosophy changes—C, Expansion of home economics in our public schools—D, Home economics required—E, Some present practices, objectives, and economic values—F, Family relationships and social adjustments—G, Child care and training—H, Home economics in parent education—I, Home economics for boys—J, Home economics and preparation for gainful occupations. II, *Recent important events of interest in the field of home economics*—A, White House Conference on Child Health and Protection: Its significance to home economics—B, Home-making conferences called by the Commissioner of Education—C, The department of supervisors and teachers of home economics of the National Education Association—D, Survey of home economics in land-grant colleges and universities. III, *Outstanding studies completed and in progress.* IV, *Some forecasts for the future.*

INTRODUCTION

For a number of years home-making education on all levels has centered its attention on the well-being of the child, and on wholesome home and family life. The reason for this emphasis is probably due to the changes in our mode of living and our attitudes toward home and family life.

The recent report of the Bureau of the Census shows that between 1920 and 1930 the number of divorces in this Nation nearly doubled. The number of marriages increased but their permanence decreased.

Some of the influences responsible for creating what appears to be a less stable home life are the recent World War; the changed economic and social status of women; and "the machine age."

Home-making education is awaking to the foregoing situation. It is not only taking stock of its own program but it is asking the cordial cooperation of sociology, economics, psychology, psychiatry, and public health to help analyze the problems affecting present day practical home living.

Our conceptions are changing regarding the contributions of home-economics education to the child's wholesome thinking and living, and to the home life of the members of the family group. These changes are outlined in this chapter under the following heads: I, Present trends; II, Recent important events of interest in the

field of home economics; III, Outstanding studies completed and in progress; and IV, Some forecasts for the future.

I. PRESENT TRENDS

A. CONTRIBUTIONS RENDERED

It is increasingly evident that home economics is regarded as making a worthy contribution to the education of the youth and the adult in the fields of health, good use of leisure time, worthy home membership, vocational opportunities, and character development.

A recognition of the foregoing contributions, now generally attributed to home economics, has come to this comparatively new field of education as a result of its: (1) Services to the local and national enterprises in alleviating suffering resulting from extraordinary misfortunes, such as disaster, drought, and depression; (2) influences in steadying home and institutional living in a rapidly changing socio-economic world; (3) serious and eager participations in such an extensive and significant undertaking as the White House Conference on Child Health and Protection; (4) alertness in keeping abreast with progressive educational procedure as concerned with accepted patterns of behavior related to the ultimate objectives of health, leisure, and social adjustments; (5) tireless efforts to place the subject on a respectable plane comparable with the older academic subjects; and (6) increasing gainful opportunities opened to girls and women and boys and men.

B. PHILOSOPHY CHANGES, AS SHOWN BY FOREMOST EDUCATORS, AND REPORTS

In Commissioner Cooper's greeting to the Fourth National Conference of Supervisors and Teachers of Home Economics, held in Boston, Mass., July 1, 1929, he placed much of the responsibility for leadership in building the American home of to-morrow upon the teachers of home economics. He charged them "to salvage from the old-fashioned home of yesterday all that will seem suitable to the new environment; and to leave in the ruins the household drudgery and the economic slavery of women." "But from the ruins," he added, "salvage the protecting love of pure womanhood, the spirit of individual sacrifice for group benefit, the unbounded hope in and ambition for offspring, and the loyalty which ever binds diverse units together in the spiritual unity of family—and into this new home bring a splendid corps of servants, workers in the matrimonial partnership, technological science to do the heavy work, business efficiency to keep out waste and hard times, ethical training to keep away the stinging griefs, esthetic appreciation to make for joy,

philosophic attitude to adjust personal difficulties, and Christian humanity, the maid of all work."

Henry W. Holmes, dean of the school of education, Harvard University, in addressing the home-economics teachers in Boston, July 4, 1929, said that teachers of home economics perhaps can direct more readily schooling toward more socially serviceable values than any other group. A curriculum with us is now a clutter of disconnected units. The curriculum should be continuous, integrated, unified by its bearing on a big, clear, and compelling objective. In home economics we should have a curriculum that centers on the home, the whole home, and nothing but the home.

A school program may be rich and it may be so administered as to be flexible enough for all reasonable purposes, without degenerating into a patchwork of disconnected courses. At the very least there should be the possibility of continuous, coherent work, covering several years, toward a specific chosen end. One such possibility should be the curriculum in home economics. Dean Holmes further states :

> If a continuous, coherent, specialized curriculum in home making can not be worked out for the senior high school and become popular in the best and fullest sense of the term, I shall be disappointed not only in American girls but in American teachers of home economics. I am certain that the establishment of a thorough and well-organized home-making curriculum would set a standard for the reorganization of curricula in secondary schools and help to rescue American education from the credit hunting that now weakens and distracts it.

Concerning college entrance credits, Dean Holmes urges colleges to accept the home-making curriculum as a whole, not to pick it apart for units of admission credit of this or that, but to recognize that it is a single educational pattern woven of many threads and worthy to be received as such.

The late Dr. Frederick G. Bonser, professor of education, Teachers College, Columbia University, made the following statement before the National Conference on Home Making called by the Commissioner of Education at Washington, D. C., in December, 1929:

> Home economics is no longer on a trade level. It is on a plane calling for intelligence, judgment, and an appreciation of values in terms of human well-being. In all aspects of home making, except those of routine nature, there are situations calling for choice or selection on the basis of relative values. It is in management—organization and choosing among alternatives—that the secret of successful home making lies. How the income shall be expended; what the best development of the child calls for; how the relationships of the family membership shall develop; what the creative activities shall be; how the family shall take its place in community life—all of these are questions to be rightly determined by trained judgment, guided by a wealth of sound knowledge.

Dr. Paul Popenoe, director of the Institute of Family Relations, Los Angeles, Calif., states in the Journal of Home Economics for March, 1930, that—

> Home economics, which in the past has too often been a narrow and rather sterile speciality, is now undergoing a remarkable evolution toward meeting its requirements more fully. Most of its content must soon find a place in every institution that pretends to fit its students for life anywhere except in a classroom.

A. L. Threlkeld, superintendent of schools, Denver, Colo., in addressing the American Home Economics Association convening in his city in June, 1930, expressed succinctly the changing philosophy of home economics education:

> We are coming to think of home economics as education in home living. This newer conception of the subject requires study from various approaches. They are: Sociologic, if we see the home as the basic unit in society; psychologic, if we see the home as the place where the most fundamental learning takes place; economic, if we see the home as the first place for teaching thrift and management; religious, if the home is the center of spiritual life; political, if self-government begins there; and æsthetic, if appreciation of the beautiful is taught and expressed in deeds and words.

In the foreword to the Louisiana Home Economics Manual, 1929, T. H. Harris, State superintendent of public instruction of that Commonwealth, says:

> It is no longer necessary to advance arguments in support of home-economics instruction. Both the profession and the public place a high value upon it. Home economics is no longer classed as a fad. All thoughtful persons agree that good homes, where parents and children live in happy companionship, where comfort, sound health, and an absence of drudgery prevail, and where children are schooled in obedience directed by self-control, are the guardians of our institutions and liberties. The persons who have studied the question agree that high-school girls who complete courses in home making under the leadership of cultured, trained teachers of home economics are much better equipped to discharge the duties of mothers and directors of home duties, on account of the instruction which they received in well-managed home-economics departments.

The home-making course for the junior high schools of Long Beach, Calif., states:

> Whether the girl becomes a wage earner between leaving school and marriage, whether she continues her wage-earning career for several years after marriage or devotes her whole time to the profession of home-making it matters little in relation to her need of preparation for home making. She may choose her meals in a cafeteria rather than prepare them in her own kitchen. She may select her clothing ready made rather than to construct it by her own skill. The more she knows of principles of food preparation and clothing construction the better choices she will make. The more knowledge she has of marketing and household buying, of home management and care of children, of the wise use of leisure, and how to get on with other people, the fuller and richer her life will be whenever and however it may be lived.

The 1930 home-economics courses of study for Detroit, Mich., and the State of Washington reflect a philosophy found in the following expression of President Hoover:

> The unit of American life is the family and the home. It vibrates through every hope of the future. It is the economic unit as well as the moral and spiritual unit. But it is more than this. It is the beginning of self-government. It is the throne of our highest ideals. It is the source of the spiritual energy of our people. For the perfecting of this unit of national life we must bend all of our material and scientific ingenuity. For the attainment of this end we must lend every energy of government.

An illustration of the changed philosophy is cited by the supervisor of home economics of Trenton, N. J., who reports there is a growing ability among the home-economics staff to analyze present-day living problems and to see the teaching problems of homemaking closely allied with those of economics, sociology, and psychology. While skills are important, there is a growing consciousness that they are only in part contributive to effective home living. Some of the teachers of homemaking in Trenton emphasize "child understanding, care, and training"; others "family relationships," or "sociological phases of pupil activities," or "the economic contribution." The plan is to pool the studies of the various interests and out of them build a better balanced program to serve the physical, economic, and social needs of the child and the adult.

Although home economics in the Trenton schools is not offered beyond the ninth grade, the new high school will make possible home-economics election beyond that year. The hope of this school system is to have at least one semester required of all boys and girls.

Glens Falls, N. Y., reports that the directors and teachers in the field of home economics have come to the conclusion that the main function of home-economics education is not merely to teach the pupil to cook and sew but to contribute to worthy home membership which means proper health habits, right attitudes toward home and family life, a working knowledge of the processes carried on in the home, economy of foods, and desire to participate in a variety of unspecified, enjoyable, and fruitful spare-time activities. These objectives are carried out in a 5-room modern apartment, with up-to-date appliances, where girls are taught the various phases of home making, where evening supper school clubs meet; and where nursery school parties are held as a part of the child-care work, at which time the bedroom of the model apartment becomes the child's nursery. In short, the apartment is the school child's daytime home.

C. EXPANSION OF HOME ECONOMICS IN OUR PUBLIC SCHOOLS

The Detroit Handbook on Home Economics for 1930 shows that in 30 years this subject has grown from a single room in an elementary

school to 213 specially equipped rooms in 85 elementary, 15 intermediate, 12 high, and 2 vocational schools, and the College of the City of Detroit. Between 185 and 200 teachers are offering instruction in this field.

The instruction emphasis has changed from manipulative processes in sewing and cooking to education for health, social, and economic adjustments, family relationships, child care and training, and other phases that have to do with the well-being of the family and its contributions to the community.

The 1930 report of the division of home economics of the Philadelphia public schools states that sewing was introduced into the elementary curriculum in 1884 and cooking in 1887, and that at present home economics in the public schools of Philadelphia is required of every fifth, sixth, seventh, and eighth grade girl. It is also taught to many high-school girls and boys. For this instruction there are provided at present 361 rooms, 24 apartments, and 7 practice dining rooms.

In fact, all high-school girls with the exception of those in the girls' high school have opportunity to elect some home-economics work. To show the volume of work done in one subject alone a summary of the number of garments made in 1930 in the Philadelphia schools is cited as follows:

Elementary schools	113,394
Schools of practice and demonstration	3,841
Special schools	1,215
Part-time vocational schools	18,155
Junior high schools	32,303
Senior high schools	6,672
Normal schools	127
Evening schools	15,401
Total	191,108

What is true of Detroit and Philadelphia as regards expansion of the home-economics program and opportunities for its election by girls in the elementary, junior, and senior high schools is practically true of other cities.

Washington, D. C., reports that in the fall of 1887, six teachers inaugurated the work of domestic science and art in the public schools. Four teachers were appointed for the white and two teachers for the negro schools. To-day a total of 140 teachers of home economics offer all the phases of the work from the elementary through high school in both the white and negro schools.

In 1919 the first junior high school was established, and instruction in clothing extended to the seventh and eighth grades. To-day there are 17 junior high schools which have, in addition to the other

teaching staff, 40 home-economics teachers; 30 for the white schools and 10 for the negro schools.

In February, 1931, the United States Office of Education sent a letter to the superintendents of schools of 698 cities, with a population of 10,000 and over. Three questions were asked: Were new courses prepared? Were home making courses provided for more pupils than formerly? What per cent of the pupils in the schools received such training?

Of the 698 cities receiving the questionnaire, 281 in 42 States replied; 178 cities reported as having revised the home-economics curriculum with significant changes in the content of the courses; 165 of these cities provided home-economics instruction to more pupils.

Among the group of cities of 500,000 or more population offering home economics to more pupils are: New York and Buffalo, N. Y.; St. Louis, Mo.; Cleveland, Ohio; Denver, Colo.; Boston, Mass.; Detroit, Mich.; Philadelphia, Pa.; Los Angeles and San Francisco, Calif.

Baltimore, Md., appointed in September, 1892, a directress and 10 teachers to teach needlework one hour per week to the grammar-school girls, 9,292 in all. This work extended from the third through the eighth grade.

As an outcome of the 1921 Baltimore school survey, a trained supervisor of home-economics education was appointed to take charge of the work. It is interesting to note the rapid growth of enrollment in home economics since 1919 in both white and colored schools as shown in the following table:

Enrollment in home-economics education in Baltimore, Md.

Grades	1919		1930	
	White	Colored	White	Colored
Fifth	154	195	5,876	1,320
Sixth	1,826	426	4,091	1,049
Seventh	1,868	254	6,645	1,318
Eighth	440	197	5,259	1,343
Ninth			3,225	925
Tenth			2,135	854
Eleventh			208	109
Twelfth			80	46
Total	4,288	1,072	27,519	6,964

For 1930–31 Baltimore reports that home economics is taught in 150 elementary, 19 junior high, 5 senior high, 2 vocational, 13 evening schools, and 4 prevocational centers. This work is conducted by 184 teachers in both day and evening schools.

Maude I. Murchie, chief of the bureau of home-making education of the California State Department of Education, reports, in a recent number of the California Home Economics Association News Letter, a study of the status of the home-economics major in the California high schools. This study was made to determine the extent to which school officials had accepted the home-economics major for graduation. The following data indicate a splendid indorsement of the major and a decided inclination to accept a broad selection of subject matter for the home-making major. Miss Murchie's study is based upon 355 high schools, of which all but 51 high schools replied to her questionnaire.

Of the 304 schools responding, 168 reported as offering a major in home economics and 17 other high schools reported as hoping to offer a home-economics major in the high-school curriculum. Only six principals questioned this major as compared with 281 principals who thoroughly approved of its inclusion in the high-school curriculum; 84 high schools required home economics for graduation; 8 other schools reported no requirement but that all their girls enrolled in the home-economics classes for the past year. It was found that approximately only 691 California girls were enrolled in the high schools offering no home economics. In the schools where home economics was required for graduation, 26,768 girls were enrolled. In schools where a satisfactory home-economics major may be selected, there were 60,098 girls enrolled; but there were enrolled in schools not offering a major in home economics, 10,355 girls.

D. HOME ECONOMICS REQUIRED

The recent State survey of home economics in the accredited high schools of Georgia shows that of the 112 accredited high schools offering home-economics instruction, 13 require seven periods per week for one year, or one unit of credit the same as for chemistry or other sciences; and 69 schools require 10 periods per week for one year granting one unit of credit.

The 1927 Alabama Manual of Home Economics Education for high schools announces that, upon the recommendation of the Alabama State course of study committee, one year of home economics was included as a constant in the program of studies for the high schools of that State.

Maude I. Murchie, chief of the bureau of home-making education of the California State Department of Education, reports in a recent number of the California Home Economics Association News letter that she sent a questionnaire to 355 high schools in her State. Replies were received from 304 schools. Of this number, 27.6 per cent reported a home-economics requirement for high-school graduation.

Long Beach, Calif., requires of all high-school girls a course in "home making" for graduation. This course is equal in credit and amount of daily preparation to such academic subjects as mathematics, social science, or English. The course is scheduled to meet five times a week for one semester and has assigned to it one-half unit of academic credit.

The course aims to develop (*a*) appreciation for right ideals of home and family ethics necessary to high standards of home life; (*b*) knowledge of the planning, decorating, and furnishing of the house, of its care, management, and hospitality; and (*c*) understanding of the wise budgeting of time and money to maintain the home with efficiency.

The course is organized into seven major topics: (*a*) Home making as a vocation; (*b*) budgets and family expenses; (*c*) factors in purchasing the family's food; (*d*) principles needed by the individual or home maker in the selection and serving of well-planned meals; (*e*) care of the house; (*f*) the house, its selection and furnishing from the standpoint of good design and cost; and (*g*) family relationships. It requires specific (*a*) teacher qualifications, (*b*) teaching methods, (*c*) problems and assignments under the various topics, (*d*) studies to determine the reactions of the students to the various units, and (*e*) reference materials.

The teacher qualifications as specified call for: A vivid personality; enthusiasm and tact in keeping discussions relevant to the key positions; a sympathetic and unprejudiced attitude toward present-day family manners, morals, and home relationships; ability to interpret the spiritual side of the home to girls; and a knowledge of art principles, practical experience in the many phases of home management, and home ownership if possible.

Regarding academic credit assigned to high-school home-economics courses, the Home Economics Bulletin of Baltimore, Md., for 1930, allots to the eleventh-grade course in "foods and cookery" an academic credit equal to that of a high-school course in chemistry, or biology, or physics; to the twelfth-grade courses in "foods and cookery" an academic credit equal to English, history, or Latin; to the eleventh-grade course in "clothing and textiles" an academic credit equivalent to courses in Latin and French.

E. SOME PRESENT PRACTICES, OBJECTIVES, AND ECONOMIC VALUES

1. HOME-ECONOMICS PROGRAMS NOT STANDARDIZED

Sometimes America is accused of being standardized as regards education, recreation, locomotion, and food consumption. Certainly this does not apply to home economics, for it aims to provide instruction to meet the economic and social needs of boys and girls on the

various school levels. Confirmation of these objectives is noted in the examples cited below.

(*a*) *Doctor Dyer's study.*—Dr. Annie R. Dyer found in her study of The Placement of Home Economics Content in Junior and Senior High Schools, based upon 100 representative courses published since 1920 and selected from among nearly 1,000 outlines collected from city and State school systems, a total of 2,659 different detailed topics, including 9,995 topic elements. Not more than 15 per cent of the detailed topics can be regarded as standardized in grade placement.

Commenting on this study, the late Dr. Frederick G. Bonser, professor of education, Teachers College, Columbia University, stated that the study revealed the need for wise selection of subject material in order that the pupils' needs and interests may be met without too great wastage of time and energy. For the curriculum is already overcrowded and the need is urgent to select materials of most fundamental value to the pupil.

(*b*) *Oakland, Calif.*—The 1929 home-economics course for the seventh, eighth, and ninth grades of the Oakland public schools has outlined problems with the hope of giving pupils experiences which will stimulate and direct their growth in five directions, namely, physically, mentally, morally, socially, and civically, with the hope that "continual enrichment of life may result."

It is hoped that the pupils' school experiences will result in helping pupils to see what to do, to act in ways productive of the greatest good to themselves and others, and to master the performance techniques decided upon.

The aim is not to teach pupils a mass of facts but to help them to create a satisfactory life for themselves. In short, the major emphasis is placed upon choices and not on production, yet the latter is not overlooked. Appreciation of beauty, good taste in all things, social services, home responsibilities, health attitudes and habits, techniques and skills needed daily for home processes, and the wise use of leisure time and money are the goals laid out by the Oakland home-economics course of study.

The seventh-grade child is introduced to foods in relation to health, with the view to learning values of good health, what its indications are, factors conducive to good health, knowledge and appreciation of sanitary habits in handling food, before she is introduced to the problem of planning and preparing a breakfast.

(*c*) *San Francisco, Calif.*—The San Francisco home-economics course of study for junior high schools describes the attitude of its builders in this statement: "We feel that the cardinal principles of education should be served by not merely 'skills and information' but also right attitudes, good habits, and ideals of health, citizenship, leisure, and work."

This city reports that home-economics teaching is adapted to the changing economic and social conditions in the home. This situation is true of every teaching unit in the junior and senior high schools offering a course in "citizen home-making." The course is open to both boys and girls and emphasizes family and other human relationships leading to good citizenship.

(*d*) *St. Paul, Minn.*—St. Paul, Minn., offers a daily 1-period course, dealing with girls' vocational problems, family relationships, including child development, and home-management problems. This course is designed for the tenth grade and above.

(*e*) *Dallas, Tex.*—Home economics in the Dallas, Tex., high schools is designed to develop in girls higher standards, ideals, and appreciations for home life, and to enable girls to acquire knowledge, appreciations, and some degree of skill in meeting the duties and responsibilities that normally develop upon them as members of society and a family group. This city reports that the home-economics courses are designed to establish standards of judgment and ideals of achievement that will function in giving the girl an appreciation of her own home and its activities, and help her to see herself as a member of a family group with definite social and economic responsibilities.

(*f*) *Hamtramck, Mich.*—This city bases its food study work for the junior high schools upon the findings of a detailed health questionnaire filled out by the junior high school pupils. The questionnaire took cognizance of many of the external observable and internal self-observable indications of health. Under the first topic were developed lessons on: (*a*) How to acquire cheerfulness; (*b*) causes of ill-nature, such as worry, fatigue, lack of needed rest, use of stimulants, failure to eat the right kinds of food; (*c*) the effect of food upon one's disposition; and (*d*) foods conducive to good nature. Under the second topic were studied: (*a*) Causes and prevention of colds; (*b*) prevention of goiter; (*c*) causes of defective thyroid and their effect upon other glands, effect of food upon the thyroid gland, and sources of iodine and foods containing it.

(*g*) *Atlanta, Ga.*—The 1930 home-economics course for the junior high schools of Atlanta, Ga., aims to accomplish three things: First, to contribute physical, social, and cultural information to the girl's education; second, to provide experiences which will help to enrich the girl's present daily living; and, third, to establish in the minds of girls a method for evaluating standards of healthful living, of expending energy and money, of using leisure, and of services to the home. These general objectives are reinforced with specific objectives for the units of work outlined which are based upon two studies, namely, the home activities of junior high school girls in Atlanta

and the activities, habits, and opinions of Atlanta home makers. The instructional units are set up in the form of problems. These for the seventh grade are: What are my responsibilities as a member of my family? How shall I use the 24 hours of the day in order to develop into a healthy, happy, helpful individual? From time to time my mother permits me to buy something for my room. What should I know in order to make the best choice of these furnishings?

(*h*) *Chicago, Ill.*—To all girls in the sixth, seventh, and eighth grades of its elementary schools, Chicago offers two periods of 90 minutes per week with equal time distribution between foods and clothing.

In the first year of the junior high school all girls have five 50-minute periods per week and in the second and third years of the junior high school two 50-minute periods. The work for these years covers food, clothing, child care, business of the household, housewifery, or home activities. In the high school the work is elective.

Home economics on the elementary and junior high-school levels is approached from the standpoint of a girl as a home helper; on the senior high-school level from the standpoint of a girl as a home manager. Home economics is stressed from the economic, social, and health standpoints, with the view of preparing girls living in a large city to meet their problems in the best possible way.

Home-making education is stressed for all rather than for some girls. The home-management course is being elected by increasing numbers, and the high-school teachers are studying the gainful opportunities open to girls with home-economics training.

(*i*) *Boston, Mass.*—Boston, Mass., reports that its 1929 revised courses of study are planned to help girls to meet economic and social changes. Some work is offered to boys in the high schools.

(*j*) *Holyoke, Mass.*—This city offers camp cookery for boys in all of its junior high schools. Girls entering the senior high schools who have not had home-economics training are required to take one year in either foods or clothing. The new courses in the senior high school are child welfare, family relationships, home hygiene, and home nursing.

(*k*) *Akron, Ohio*—Akron, Ohio, stresses for its elementary schools, the minimum essentials of cleanliness, neatness, orderliness, and accuracy.

For the first year of the junior high school it emphasizes health habits as to diet, sleeping, bathing, dressing, and accuracy; skills; and appreciations. For the second year it emphasizes the enonomic and social aspects of home life, which have to do with good working habits, skills in marketing, preparation of simple meals, the use of money, social life, and savings; ability to greet guests and to co-

operate in making the home happy; personality development; self-improvement, for example, to be resourceful, industrious, dependable, cooperative, etc.

A well-rounded course in home making is offered in every high school. This course includes marketing; budgeting; meal planning; preparation and service of foods; clothing, its choice, cost and care; home management; child care and development; finances; family relationship; care of the home; thrift and æsthetics; home furnishing; and nutrition. The latter is so arranged that it may be taught to girls and boys under and over weight.

The school cafeteria is used as a nutrition laboratory. The high schools offer a course in historic or peasant costume, in order to correct the abuses heaped upon the clothing departments in planning and making the costumes for the plays and pageants in the various subject-matter departments of the school, particularly those of music, English, and physical education. This course will be given in conjunction with the art department. A course in "personal regimen" is offered and is an alternative for the required civics. That is, this course may be elected by boys and girls for it has to do with the social, personal, and economic problems of youth. It is specifically designed to develop better personality, attitudes, and ideals.

The work in the junior high school or in the seventh and eighth grades is scheduled to meet daily for single periods. The texts used and assignments made enable more students to take the work. This extends the influence of the teacher, decreases the need for special equipment, and offers a well-rounded viewpoint of home making without increasing the staff, yet develops a broader conception of the subject through reading assignments and gives the student an opportunity to explore the vocational possibilities.

(*l*) *Paterson, N. J.*—Home economics from the fifth through the ninth grade is required in Paterson, N. J. Every girl is required to take hygiene, first aid, and home nursing before she can graduate from high school. This course is offered in the first year of high school and is taught by the home-economics teachers. It is interesting to note that the objectives for the fifth grade are to guide the child to help herself through the simple activities of the home; to find joy in a healthy useful, daily life, and to be helpful in the home duties. This throws responsibility upon the little girl for keeping her person clean and for being healthy by eating the proper foods. This idea of placing the responsibilities upon the pupil is carried through the elementary school into the high school.

New Jersey, by law, requires high-school girls to have one year of hygiene composed of one term of first aid and one of home nursing.

The responsibility for the teaching of this subject in Paterson fell upon the home-economics teachers for they seemed better prepared to offer it. They revised their work in foods in order to give a hygienic outlook upon diet and home making. Since hygiene is a study of health which depends largely on what we eat and how we live, food properly chosen, prepared and served, forms an important part of this subject. It is necessary to know what the body needs and how to supply these needs through foods. They are studied from the standpoint of chemical composition, nutritive value, and sources. In each class foods are prepared and served. Personal sanitation is stressed, such as washing hands before preparation of food, before eating, after use of the handkerchief, and trip to the bathroom. Household sanitation and its practice receive attention in the school laboratory by keeping the garbage pail clean, the cupboard supplies in tin or glass, milk on ice, dishes properly washed, and towels kept clean.

Child care is taught in cooperation with the "well-baby clinic," which is in charge of a trained nurse.

(*m*) *New Mexico.*—The September, 1929, issue of the Home Economics Counselor for the State of New Mexico announces that "At the end of 10 years of intensive curriculum revision it is encouraging to report that home economics has kept up with the advance made in other fields."

New Mexico's aim is to keep its home economics program "ever in the making" and abreast with the changing economic and social conditions of the times. It has attempted to develop in the girls selective judgment, resourcefulness, and administrative ability. The home has been idealized and much thought has been given to family relationships, yet there is need for further study of the curriculum because too much time is still given to techniques and skills at the expense of the economic and social aspects of the subject.

The following topics are suggested for the first and second years of high school. In the first year are considered such subjects as food selection, preparation, and serving; meal planning; care and training of young children; personal hygiene; family relationship problems; clothes for the high-school girl; and the care and furnishing of the girl's room.

The second year stresses home planning; the family income and investments; home management; community relationships; dietetics; and home nursing.

2. ECONOMIC VALUE OF HOME ECONOMICS

Seattle, Wash., reports that the records kept for the past five years show that home economics in the schools has not only educational

worth but economic values as well. Enough products from the home economics laboratories have been returned to the community to pay for the cost of the department. The money value of finished products returned to the community by the home-economics departments is as follows:

1922–23	$65,017
1923–24	79,804
1924–25	79,970
1925–26	74,787
1926–27	78,561
Total	378,139

F. FAMILY RELATIONSHIPS AND SOCIAL ADJUSTMENTS

Family relationships is a new subject in the home-economics curriculum. The time alloted to it may be a unit of a few weeks, or a semester, or a year. Its terminology is not uniform. It is called "social relationships," "social adjustments," "the home and society," "euthenics," "human relationships," "the home and the family," "home management," or "citizen home making." But the content covers home living, relationship within and outside of the family, family life, attitudes and ideals of home and family life, and social adjustment. The placement of this subject is not uniform. It may begin in the junior high school and continue through the college.

San Antonio, Tex., offers a course as early as the sixth grade or the first year of the junior high school. The aim of the subject is to develop appreciation for family life through the discussion of such topics as—

1. What my family means to me. 2. Some things I like about my family. 3. How I can help my family in household duties and in entertaining. 4. What health means to the members of my family. 5. What education means to the members of my family. 6. Qualities of a good mother, father, brother, and sister. 7. How my clothing affects what people think of me. 8. Does my clothing cost more than it should? How the cost of my clothing affects the cost of the clothing of the other members of my family. 9. How I can help sew for my family. 10. How I can "save" my clothes. 11. What food shall we have at our party? 12. What food habits ought my brothers and sisters be taught? 13. How does food affect the disposition of the members of my family? 14. How can I relieve mother in the preparation of meals?

Denver, Colo., allots to the subject, called "human relations," in the junior high schools, five 55-minute periods for one semester, and offers as minimal essentials the following:

1. An appreciation of home life and mother. 2. An understanding of the importance of habit formation as a basis for normal family life. 3. An appreciation of economic values and the function of money as a means of life.

4. The development of a right mental and social attitude toward the work of housekeeping as a contribution to the health, comfort, and happiness of the family. 5. An appreciation of the problems involved in the care of younger children in the home. 6. An understanding of the girl's responsibility during illness in the home. 7. An understanding of the value of leisure. 8. An attitude of respect and loyalty to the community.

Some city systems devote a school year to the subject under the title of "home management," when such topics are studied as family finance, furnishing and care of the home, the planning and use of time, personality development, personal and family health, child care and training, attitude of respect and loyalty to the community, mode of living, and planning for successful living socially and economically.

The names of the courses may vary but the content is practically the same and is taught from viewpoints of psychology, sociology, and economics. The consensus appears to be that the most important factor in this comparatively new subject is the personality and character of the teacher, for it is her job to secure the immediate interest and confidence of her classes in this subject—an ability which requires experience in family living to develop a sympathetic understanding of the problem. It also requires a broad background of social and economic experience to be able to decide with wisdom questions arising out of family life.

There is a growing tendency to offer this work to boys as well as girls, to base it on actual situations, to integrate it throughout the entire curriculum, and to organize it on the various school levels.

Manhattan, Kans., offers in the sophomore year of the senior high school an elective course in "home living." Five 70-minute periods per week for one semester are devoted to this popular course. It is divided into three main sections—family relationships and home management, health and home care of the sick, and child care and development. Under family relationships and home management are included seven units as follows : The home and the family, the family income and its expenditure, planning and furnishing the home, care of the home, planning the use of time, providing for advancement and higher life needs, and relation of home to community.

The minimal essentials in terms of principles, ideals, or understanding as to the home and the family are that (*a*) the home furnishes happiness, comfort, rest, and security to its members; provides a place for the care and training of children; is a center of production, consumption, and social life; and that it has gone through many changes in its development; (*b*) the family exists for the protection, nurture, and training of the children and for the development and happiness of all its members.

San Francisco, Calif., offers a course in "citizenship home making." This course is open to all eleventh and twelfth year girls and boys and receives academic credit.

During the first term the objectives are (1) to develop an appreciation of good architecture and discrimination in design and decoration; respect for all materials in their suitable places; (2) to develop a recognition of the importance of housing in the furtherance of our civilization; (3) an intelligent inquiry regarding modern improvements in household equipment; and (4) to develop an aspiration toward performing creditably woman's greatest work in the most important institution of the State—the family.

The objectives for the second term are to develop : (1) An appreciation of the functions and importance of the home in the community. (2) An appreciation of a woman's duties and responsibilities in the home and in her community contacts. (3) A knowledge of the economics of spending; ethics of consumption; and responsibilities of the consumer. (4) An intelligent attitude of sympathy and understanding toward the different races and nationalities which make up our population. (5) An intelligent familiarity with the means that are being taken for social betterment in the girls' and boys' own community.

The late Anna E. Richardson, field worker in child development and parental education of the American Home Economics Association, made a study of 108 cities to determine the status of work in family relationships in the home-economics departments of these cities.

To the question, "How did you first interest the girls in home and family relationships?" the following replies were received:

Discussion of what constitutes a home; difference between a house and home.

It was an outgrowth of budgeting income. Some girls demanded more clothes than family could afford, which brought out the idea that girls should think in relation to family as a group rather than just themselves as individuals separate from the family.

It seemed to be an interesting outgrowth of our child-training course.

I ask the girls if they can think of a home which everyone enjoys visiting. I next ask why everyone enjoys living in this home. From this happy home which they have in mind, we can lead up to what it takes to make a happy home and the junior high school girls' share in promoting home happiness.

To the question, "What topics were most enjoyed by the girls?" replies were made as follows:

High-school girl's contribution as a member of the family. Children, their rights, place, and care in the home. Adolescent problems. Home as a source of power. Girls' problems in general; influence of habits formed in childhood, how to be popular, how to entertain economically, character development and leadership.

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Reports of projects undertaken by the students are as follows: Making mother happy; pleasant surprises for the mother; how to be well groomed; what is order in the home; a study of honesty; how to spread the idea of good citizenship; the family circle, an agency for education and higher living.

Cleveland, Ohio, reports family relationships as one of the units in the "personal regimen" course. "The growth of the city, increased standards of living, lessened home activities in cooking and sewing and preserving, increased number of women working outside of the home, and the consequent increase of leisure time are some of the changes affecting the modern home and consequently family life of the present time."

Portland, Oreg., reports that it gives three to five weeks to a unit in "home management." The main topics studied are the family as a social, educational, and economic institution; an analysis of the home makers' job; personal happiness and comfort of the home; family recreations and amusements; and the relationship of the home to the community.

G. CHILD CARE AND TRAINING: ITS PLACEMENT IN THE HOME-ECONOMICS PROGRAM, AND CONTENT OF COURSES

The Office of Education study of 281 cities shows that: All recently revised city and State home-economics courses include work in child care and training; the subject is listed under various titles and is offered on the various school levels. It may begin as early as the sixth grade, and this content, as outlined, recognizes the rights as well as the needs of young children.

Among the rights are the parents' responsibility for providing hygienic conditions of living, food, clothing, shelter, education, happiness, love, care, exercise, fresh air, and opportunities for children to develop to the best of their ability.

Among the needs of young children are: (1) To help children to establish good habits of personal cleanliness, sleep, and eating; (2) to provide amusement to keep children happy through play, their toys, and stories; (3) to develop the desirable habits of promptness, obedience, cheerfulness, helpfulness, and courtesy; (4) to train children to dress and undress, pick up toys, do simple tasks about the house; and (5) last, but most important, to educate older brothers and sisters to manifest patience, self-control, and good humor toward younger brothers and sisters.

The standard of attainment set for such work covers the ability to appreciate the rights of little children in the home and community; to know the habits a child should form in the home, and good ways of entertaining children; to appreciate the need of play for their

social development; and to possess the qualities needed to guide and care for little children.

Such a unit may have alloted to it two 80-minute periods for three weeks and be one of seven different units comprising the semester's work. The other units may be "problems of home and family," "financing the home," "helping with the housekeeping," "illness in the home," "girl's share in hospitality of the home," and "relationship of the home to the community."

The Washington State course of study includes two units on the child. One is offered in the seventh grade or the first semester of the junior high school and consists of eight single-period lessons.

This unit stresses the care and guidance of little children, as to the handling of young children; serving of food; proper sleeping arrangements; laundering of clothes; and signs of health.

In the tenth grade or first year of the senior high school is offered the second unit called "family welfare and child development."

South Bend, Ind., offers in the ninth grade a unit on the (1) baby, emphasizing general care, cleanliness, exercise, amusement, pacifiers, and foods; (2) the preschool child, stressing habit formation, rest, play, books, toys, clothing, food, and behavior problems; (3) adolescent child, including such topics as food, clothing, and personal hygiene; and (4) home maker, her health, sympathy, tact, foresight, and self-control. In the senior high school, the unit on child welfare emphasizes the right attitude toward motherhood; the importance of mental and physical care in the early stages of a child's life; the fundamental rights of childhood; parents and their responsibility to children; parenthood as a profession; heredity and eugenics; infant mortality; bottle versus breast-fed babies; birth registration and its various uses; and prenatal care.

Baltimore, Md., offers a survey course in child care in the ninth grade which stresses two problems—the care and the diet required for the baby at different ages, and the habits and play for the preschool child. In the twelfth grade, child care is again offered but on a much higher level. Here girls study the children's charter or Bill of Rights, mothers' and fathers' responsibilities to these rights; prenatal care with emphasis upon the right care of the mother; care of the nursing mother; feeding and physical care of the infant; nutritional diseases; effect of wrong diet on the child; his clothing; habits; and nursery-room requirement.

The John Muir Technical High School of Pasadena, Calif., reports that it requires of all girls enrolled in the eleventh and twelfth years a semester course in "child development." In connection with this course is a demonstration laboratory of preschool children. This demonstration unit consists of 16 children ranging in ages

from 2 to 4 years. The children come at 8.30 in the morning and stay until 3 o'clock in the afternoon. The high-school girls have three lectures and two laboratory periods per week. The laboratory is connected with an observation room. This room has a screen of 1-way visibility which makes it possible for a class to observe children in the laboratory without disturbing the children's activity. What is taught in the classroom is applied in the laboratory, for the average high-school girl appears to be unable to distinguish the significant things about children unless she receives guidance. She is given *leads* and observation sheets as guides for observing the children. When pupils understand the significance of a child's behavior much of the drudgery in the daily care of children is eliminated. This course in "education for parenthood" also vitalizes the other courses. For example, the food classes plan the menus and prepare the food for the nursery school children. Such a course is not easily managed in the modern high-school program, but results obtained are so worth while that the obstacles surmounted are justified.

Dr. Paul Popenoe, director of the Institute of Family Relations, Los Angeles, Calif., commenting on the need for nursery schools in connection with home-economics departments, says:

> Students lack knowledge of how to handle children, their own and others. Some recognition is being given to this fact in many institutions, but it is largely on an academic basis.
>
> Departments of education and psychology must come more closely in contact with reality before they can give anything more than theoretical help. Bringing up children theoretically is like making love theoretically—apt to produce surprises. This subject can no more be learned without laboratory experiences than can physics or chemistry. Schools that have made it possible for their students actually to deal with children would not, I believe, go back to the theoretical method.

Detroit, Mich., offers "child care and training" in its intermediate, three high, and two vocational schools, and in the College of the City of Detroit. At present Detroit has no nursery schools in the high schools, but provisions are being made for such in the new addition at Southeastern High School. To interest the boys of this school in the course, they will be invited to make for the nursery school some of the furniture, blocks, and cupboards.

The Roosevelt Elementary School uses a kindergarten for observation purposes. The Garfield Elementary School, in March, 1928, opened a nursery school as a joint project with the Merrill-Palmer School. The Detroit Board of Education furnishes the major equipment, the rooms, light, heat, janitor services, and food. The Merrill-Palmer School furnishes the teacher and some additional equipment. Most of the furniture and play equipment was made and is kept in repair by boys in the vocational shop of the Garfield Ele-

mentary School. The girls in the home-making classes make and keep in repair the curtains, sheets, and towels used by the nursery school children.

This nursery school has a group of 16 children composed of an equal number of white and colored boys and girls, ranging in age from 2 to 5 years. The staff consists of one full-time nursery school teacher; one part-time assistant whose services are gratis; one graduate student assistant from the Merrill-Palmer School; the services of a public-health nurse; and, when needed, those of a physician and a dentist.

The purpose of the nursery school is to afford laboratory facilities for eighth and ninth grade girls who are studying child care and training in the home-making classes. The Garfield Nursery School provides, as far as it can, a suitable environment for the physical welfare, growth, mental and social development and educational opportunities for children of preschool age. It also aims to help the parents of these children to a better understanding of the needs of young children and to a knowledge of newer methods in child care and training. The program is very flexible, is varied according to the season, weather, and needs and interests of the children.

Four groups of girls per year are given the opportunity to work in the nursery school for 10 weeks to study child care and training. The following units of study are covered during the 10 weeks: (1) Sleep; (2) food; (3) clothing; (4) play and play material, including songs, stories, and games; (5) habits, good and bad, what they are and how formed; (6) physical development; (7) mental development; and (8) guidance or discipline. These girls assist in the nursery school two hours each day for 10 weeks. Every third week they are rescheduled for a different two hours, and they take turns in planning and preparing the meals for the children under the supervision of the home-economics teacher of the school and the assistant in the nursery school.

Mothers' meetings are held every two weeks in the afternoon while the children are asleep. Attendance at these meetings is voluntary, but it has been almost 100 per cent perfect. Topics for discussion are chosen by the mothers. Individual conferences are held whenever desired. Mothers are invited periodically to spend a morning in the nursery school, and frequent home visits are made by the nursery school teacher.

The following records are kept: Daily attendance; monthly physical growth and development; once a year, mental tests; twice a year, behavior analysis; and once a year, general summary.

The Minnie E. Jeffries Elementary School maintains a nursery school for children from broken homes or from homes where mothers

are employed. This nursery school is under the direction of the welfare department of the city, which sends the young child to this nursery school instead of compensating the mother for the support of the child. This type of nursery school is one of a very few in the United States. Another welfare nursery school is maintained in the Scotten Avenue police station. The girls of western high school have contributed their services in making sheets, towels, wash cloths, and blankets for these nursery schools.

Paterson, N. J., reports that "child care" has been a part of the household arts program in that city since 1912. The reason for this is that a study showed brothers and sisters had the care and responsibility for younger brothers and sisters.

Los Angeles, Calif., supports 30 day nurseries, which are under the direction of the home-economics department of the board of education. The day nurseries were inaugurated in 1914–15. They have grown in number until there are now 30. They are in charge of 67 matrons. Each nursery has a senior matron and many have, if necessary, one or more assistants. The matrons have had considerable experience in feeding children and possess a love for and a real interest in childhood. The nurseries are open from 8 a. m. to 4 p. m. They may even open as early as 7.20 a. m. and close at 5 p. m. Children ranging in age from 9 months to kindergarten age are admitted.

The purpose of the nurseries is twofold. They are primarily for children of prekindergarten age whose mothers work outside of the home; and, secondly, for girls in the home-making classes to receive first-hand training in the care of children.

The girls in the home-making classes below the high school prepare the food and look after the housekeeping and special comfort of the children. It gives them an opportunity to study the problems in child care, and since many of these girls marry young, this training is perhaps among the most valuable school experience they receive.

H. HOME ECONOMICS IN PARENT EDUCATION

Home economics is a pioneer in parent education. Alice Loomis, formerly in charge of the department of home economics at the University of Nebraska, later State supervisor of home economics of that State, and now a member of the Institute of Relationships of Yale University, initiated, in Nebraska, more than 15 years ago, a state-wide program in parental education.

One of her students, a specialist in parental education in the State Department of Education of Oklahoma, and the past and present supervisors of home economics of Oklahoma, aided by others inter-

ested in this new field of education, have organized a state-wide program in parental education.

This State is making parent education an outstanding phase of adult home-making education. Such instruction is now offered by a full-time instructor in six of the larger public school systems. Tulsa, Okla., reported in 1928 that 2,000 men and women had enrolled in "home problem" classes. In fact, each school in the city offered to parents a unit of this work.

Other cities in Oklahoma have study circles of parent education taught by specialists in this field. Last year Ardmore, Okla., conferred 75 diplomas upon women who had attended 82 per cent of the meetings, read at least one reference book on parent education, and reported the analysis and solution of some home problem.

The lessons assigned to these classes are in the form of problems or projects to help parents realize that the instructor can not prescribe a remedy for the ills of the home. At the very most, she can only help the students to view their problems from their various angles and point out the underlying difficulties—in other words, lead the way to an analysis of the factors causing the trouble and aid in their removal. The following is a typical example of a plan used to solve a problem in adult home-making and home-management classes:

I. Selection of project which deals with a specific home problem of the student; and selection of time to discuss, in a personal way, the reason for the selection of the topic.

II. Class assistance given by the teacher that has to do with the fundamental principles of psychology of home living in the terms understandable to the learner. These principles are concerned with the mother as a teacher; the mother's place and duties in the home; her responsibilities in keeping the home machinery running smoothly, in beautifying the home, in understanding the children, in being sympathetic with their problems and similar ones, in fact, the subject of psychology applied to home living.

III. A discussion of the home problems listed by the student.

IV. Methods of solving the problem.

V. Readings used in solving the problem.

Although the instruction is informal, it is definite and pertinent to the problems presented by the class members, who are led to solve their own difficulties.

The majority of classes meet in the morning when the older children are at school. In some centers the younger children are cared for by the high-school girls of the home-economics classes as part of their laboratory practice in child care and training.

As a result of the state-wide interest in parent education, Oklahoma organized a bureau of child development and parent education, headed by Mrs. Calvert, who was formerly the State supervisor of home economics.

Child-development classes for parents were organized in Houston, Tex., June, 1929. That year 18 classes were held, with a total enrollment of 274. The second year, 1929–30, 37 classes were held, with a total enrollment of 1,015; including visitors, this instruction reached 2,008 families. The course is offered in units of nine meetings. Thus far these groups have studied the preschool and the preadolescent child. High-school girls from the child care and training course in the home-economics departments of near-by high schools take charge of the children during the time the mothers are at the meeting.

This plan has met with unbounded success, for the girls in a number of cases invited the parents to bring more children. The girls kept a record of their observations and the next day discussed them in their home-economics classes.

The success of this new educational venture is due largely to the interest of the parents in the work and to the educational preparation and personality of the teacher, who aims to present, in an interesting way, information pertinent to the problems raised by the class.

The Merrill-Palmer School of Homemaking, of Detroit, Mich., has for some time stressed home-making education for parents.

The household administration department of the University of Cincinnati conducts many study circles on parent education in the city of Cincinnati.

The State of Montana has, within the biennium, organized a statewide program in parental education under the leadership of the home-economics forces of the University of Montana and the State College.

The extension services of the land-grant colleges and the United States Department of Agriculture have given considerable attention to this phase of the work in their adult classes. Quite recently a senior specialist in "home management" was added to the extension service of the Department of Agriculture at Washington.

The home-making service of the Federal Board for Vocational Education stresses this work in both the day and evening schools.

The White House Conference on Child Health and Protection created an interest in this new phase of education and secured facts through its many researches to a degree that could not have been otherwise accomplished in a decade. Attention of committee A on "The Family and Parental Education of Section III, Education and Training," was directed to the problems of home and family life in our present industrial organization. Among the studies inaugurated was "The material available on the status of the family at the present time and an analysis of the influence of changing economic and social factors on it." Secondly, Dr. Ernest Groves, of the University of North Carolina, undertook to determine the funda-

mental human values in family life. Doctor Burgess, of the University of Chicago, collected records from 8,000 children to determine the influence home activities and relationships have upon personality development. Dr. Rachel Stutsman, of the Merrill-Palmer School of Home Making, began a method for measuring the indexes of homes which produce well-adjusted and those which produce poorly-adjusted children. For this study, 50 children of each type were used.

Standards in the light of best present knowledge were set up for adequate housing and for assisting the family in expenditures for living, food, housing, and clothing.

The recommendations of the committee are as follows :

1. Further research is important in the field of the family. Only on the basis of research can an adequate science of the family be established and the problems of family relationship be treated. One specific research recommendation, growing out of the studies of this committee, is that provision be made for further development of the indexes for measuring family relationships and home atmosphere tentatively formulated for the White House conference.

2. Further research is needed on the social and economic factors affecting family life to-day. The relation of these factors to the family is worthy of the same careful consideration that has been given to the conditions of production in relation to industry and commerce.

3. Institute or research centers to study family relationships and processes of family life, as well as the economic and social factors operating upon the family to-day, should be established. These should integrate the various disciplines affecting family life.

4. Family consultation centers should be established with a staff composed of specialists in home economics, housing, social work, law, psychiatry, psychology, and sociology. These centers should be prepared to give advice and information on the different problems of family life.

5. Special attention should be paid to Italians, Mexicans, and other immigrant groups, who come into the cities from rural backgrounds, who need help in adjusting themselves to the conditions of American urban life.

6. Special attention should also be paid to the Negro family, in order that it may attain that economic security necessary for stable family life and may also be assisted to the attainment of higher ideals of family life.

7. Instruction should be provided by schools and colleges to further the satisfaction of intelligent participation in family life and to prepare for courtship, marriage, and parenthood.

8. Professional schools for doctors, teachers, social workers, nurses, and other specialists coming in contact with children and the family should provide specific training, in order that their graduates will be equipped with insight regarding human relationships and the problems of family life.

9. Authentic existing agencies of parent education should be given wholehearted support, and the initiation of further efforts on the basis of scientific knowledge of methods and content should be encouraged.

I. HOME ECONOMICS FOR BOYS

Home-economics instruction for boys has become so well established during the biennium that five States included in their revised

home-economics courses of study some work for boys. These States are Texas, Washington, West Virginia, Indiana, and Oklahoma. A number of States are in the process of revising their State courses in home economics, for example, Iowa, Idaho, and Minnesota. Undoubtedly, these courses will also include a home-economics plan for boys.

The West Virginia course outlines for boys of the ninth grade five periods per week for one semester. The work covers a unit each in foods a boy can prepare at home or in camp, playing the part of a host or guest, selecting food away from home, clothes and business success, and spending the pay check.

The State of Washington offers the work as a general elective. It includes the above unit and in addition the boy's relation to his family, family cooperation, the house, home mechanics, and the home grounds.

Office of Education Pamphlet No. 4, dated April, 1930, outlines briefly the home-economics courses offered to boys on the various school levels in a number of representative cities of the United States. The following is an example of the growth of the home-economics movement for boys in several cities:

Eight years ago home economics, for the first time, was offered to boys of the south high school of Denver, Colo. In this course 14 boys enrolled. To-day out of an enrollment of 865 boys in this high school fully 18 per cent are taking some work in home economics. This work is offered in the eleventh and twelfth years of the high school. The time allotment is five 45-minute periods per week for one semester. The subject receives one unit of credit and the central core of the subject is "right living."

The high-school boys of Denver electing this work are among the athletes, school debaters, and honor students. The usual comments of boys concerning this work are, "I have learned more honest-to-goodness practical things than in any other course I ever took." "Some one told me it was an easy course, but I think we enjoy it so much it just makes it seem easy because we have to work."

A year ago home economics was offered to boys in all the junior high schools of Denver as a part of the required vocational work. The course is called "problems in everyday living" and is considered under four units, namely: (1) The boy, his family and his friends; (2) food facts for the individual; (3) earning, saving, and spending; and (4) clothing for boys.

In this school system it is generally recognized that home economics for boys has definitely come to stay.

Six years ago Tulsa, Okla., first offered home economics to boys, and during this period it has reached 3,500 boys.

Nine years ago Los Angeles, Calif., opened the home-economics laboratory to boys. Now the subject is offered in three distinct types of schools: (1) Vocational schools; (2) developmental schools where boys and girls are in the same classes and assist in the preparation of the noon lunches; and (3) in general high schools where by far the largest number of boys is enrolled.

In these high schools boys are offered such work as problems in fundamental nutrition; food preparation and service; etiquette and social customs; selection, repair, and care of clothing; financing a modern family; and the problems of fatherhood. In some of the high schools the boys have an opportunity, in their unit on child care and training, to observe young children.

For about a year, in the Polytechnic High School of Long Beach, Calif., home economics has been offered to boys. The content of the course was developed from the returns of a questionnaire which was sent to 350 senior high-school boys whose fathers represented occupations in all the major fields of the Federal classification. It was found that the boys were interested in the problems of individual differences; earning a living; budgeting an income so as to get the most out of it; correct dress for men; and family adjustments.

The course was planned for boys of the junior and senior classes. It is called "family adjustments" and covers such topics as "getting along with people"; "individual differences"; "development of family life, with emphasis on modern, economic, and social conditions influencing family life, its organization and disorganization"; "adjustments: In family finance, between children and parents and children and grandparents, and in case of sickness and accident"; and, finally "character traits and environmental factors needed in the twentieth-century family for developing wholesome family relationships."

During the first semester of this course there were two classes of over 30 students in each. Applicants for the second semester were more than it was possible administratively to handle, consequently only two classes of 40 each were permitted to take the work.

It is difficult to test such a course since its value lies largely in the thinking boys do and the desirable attitudes they develop. Testing for purely factual content impairs the spirit of the course; hence, it seemed advisable to develop tests from the questions submitted by the boys as important for them to know. Among such questions were: What are the important elements to be considered in the plan for purchasing a home? What are bigamy, polygamy, polyandry—are these found in the United States? Should women work whose husbands are working? Is the family necessary? Why? What is the effect of the present industrial situation on the family

and the home? Who should control the family income? Do children have as great an economic value as they once had? What do children owe the family? Why has the modern age been called the technological age?

J. HOME ECONOMICS AND PREPARATION FOR GAINFUL OCCUPATIONS

One of the purposes of home-economics education is the preparation of students for gainful occupations as shown by the survey of land-grant colleges and universities. Forty-two of these institutions cite as one of their objectives the preparation of students for gainful employment in the fields of teaching, extension service, business, journalism, institutional management, and dietetics. However, according to the survey, 78 per cent of the 1927-28 graduates of all the divisions of home economics in 92.8 per cent of the land-grant colleges prepared either for teaching or completed the course in general home economics.

To meet this demand appears to be the first obligation of home-economics departments in land-grant colleges. The survey suggests that "Home economics should lead in establishing somewhat the same relationship with commercial firms that medicine, agriculture, and other fields of education have established for the purpose of working out standards for commodities in their fields. This is a gigantic undertaking. Home economics should exert a wide influence based on scientific investigation."

Few departments of home economics in our institutions of higher education have developed curricula specifically designed to prepare students for remunerative jobs. The New York State College of Home Economics of Cornell University, and Michigan State College of Agriculture and Applied Science offer "hotel management" to men. A number of institutions offer training in "tea-room work." Although departments of home economics in colleges and universities have made little or no effort to develop curricula for gainful employment outside of teaching, the training in general home economics appears to be helpful in securing positions in various types of industrial pursuits. Such positions, however, are requiring more and more training for their specific work.

Home economists, having high scholastic attainments in addition to ability in salesmanship, are now sought for commercial positions providing large compensation for superior services.

The department of home economics in business of the American Home Economics Association reports a membership of 375 women representing 169 or more business organizations and 69 or more distinct types of work.

A few years ago the research department of the Detroit public schools made a study of the jobs occupied by girls trained in home economics. This study was directed by one of the home-economics directors of that city. Four hundred questionnaires were sent to Detroit girls trained in home economics in either an academic or technical high school or the girl's vocational school. Replies were received from 155. Of this number, 20 per cent stated that home economics had aided them in deciding the type of work they wanted to do; 30 per cent, that their home-economics training had helped them to secure a position; 38 per cent, that home economics had been of value to them in their business positions; and 23 per cent, that home economics was of value to them other than in their positions.

The 155 girls reporting had entered 161 different jobs, of which 100 related to home economics.

In 1928–29 the bureau of research of the Cleveland public schools made a study of all pupils leaving school before high-school graduation. This investigation included about 9,000 boys and girls between the ages of 14 and 18, besides 1,500 more pupils whose school day was shortened so that part of the day could be spent in gainful work.

This study was based on an analysis of 11,000 work permits and 4,000 renewals granted to boys and girls for subsequent jobs. The analysis showed that the occupations entered by these pupils were housework and clothing manufacturing.

Girls from five senior high schools in Cleveland obtained more permits for housework and the clothing factories than for any other occupation. Girls from 11 of the junior high schools, special classes, and seventh, eighth, and ninth grades received permits for housework which, in this study, represented work for gainful purposes and "at home." The study revealed that 45 per cent of the girls obtaining work permits to do housework stay at home so that one or both parents can enter gainful employment. Thus, 55 per cent, or more than half, of the girls obtaining permits do housework for gain. Of this number, over 52 per cent were girls from the senior high schools, 20 per cent from the junior high schools, and 28 per cent from the elementary schools.

Another gainful occupation entered by high-school undergraduates was retail food, such as grocery stores, confectioneries, delicatessen stores, and tea rooms. About 29 per cent of the girls were in this occupational group. To summarize, the school girls receiving work permits entered one of four occupational groups, either housework for wages, or housework at home, or the clothing industry, or retail food. It would appear from this study that it would be well for pupils in the elementary, junior high, or senior high schools, who plan to enter the gainful occupations cited, to have some special

home-economics training other than that offered students planning to graduate.

In the evening schools of Paterson, N. J., the home-economics department offers to girls 16 years of age and over a course in child care and training. This course has two objectives—to prepare girls for remunerative positions as "mother's helpers" and to interest these girls in young children.

Last year the home-economics department of Pasadena, Calif., placed in homes 30 of the 100 girls who took the child-care course offered in the John Muir Technical High School. For this work these girls receive a substantial compensation.

The home-economics department of the Manual Arts High School of Los Angeles, Calif., plans to prepare girls for gainful positions as managerial assistants to home makers.

II. RECENT IMPORTANT EVENTS OF INTEREST IN THE FIELD OF HOME ECONOMICS

A. WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION: ITS SIGNIFICANCE TO HOME ECONOMICS

One of the outstanding achievements in home-economics education during the biennium centered around the White House Conference on Child Health and Protection. Not since the World War have home economists had an opportunity to contribute to the problems of national welfare as largely as they did through this conference during the past year. The World War called for the combined energies and talents of thousands of home-economics teachers to help "save the food to win the war"; during the past year many of these experts were invited by the President of the United States to contribute their professional resources to further all those interests concerned with the problems affecting our 45,000,000 growing children of varying racial inheritance, background, and education.

To this challenging task of helping to solve the many problems of the complex childhood population of America, 3,500 experts on 150 different committees of the four main sections of the conference, namely, medical service, public health administration, education and training, and the handicapped, contributed their services. Findings from many of these committees and the children's charter have significant information and implications for the home-economics teacher.

It is suggested that home economists keep informed as to the publication of this material. One of the first reports ready for circulation is "The Home and the Child." This book should be especially helpful to the home-economics teachers whose special interests have to do with housing, furnishings, and equipment, the

management of home activities, of income and clothing, as these affect the best welfare of the home and the child.

Since the findings of the main committees will appear in published form, conclusions from the various reports will not be cited in this chapter.

B. HOME-MAKING CONFERENCES CALLED BY THE COMMISSIONER OF EDUCATION

Another significant impetus to home-making education during the biennium is found in the national home-making conferences called by the Commissioner of Education. Such conferences were called at Boston, Mass., July 1; Washington, D. C., December 6 and 7, 1929; and at the University of Cincinnati, Cincinnati, Ohio, March 21 and 22, 1930.

The conference at Boston was held in conjunction with the annual meeting of the American Home Economics Association. The principal speaker was Dr. James E. Russell, dean emeritus of Teachers' College, Columbia University, who emphasized "Fundamental philosophies of present-day education and the next steps in home economics."

As a result of this conference a group of 25 who attended the conference and the summer session at Teachers' College, Columbia University, met during the summer session to discuss the importance of having the Commissioner of Education call to Washington a small group of 50 men and women to consider "The place and function of home economics in American education."

The commissioner called this conference at Washington on the dates previously mentioned, and invited a small group of eminent educators, including presidents of universities, deans of education, superintendents and principals of schools, presidents of educational organizations, and home economists representing the public schools and the teacher-training institutions to confer on the above subject.

The commissioner's purpose in calling these conferences is fourfold: First, if possible, to help direct attention to the most pertinent problems facing home-making education in a rapidly changing society; second, to bring the problem to the attention of those who are responsible for training home-making teachers, supervising them in our public schools, administering the funds and who are the recipients of this type of education; third, to help focus attention upon the indispensable contributions of educational fields closely allied to the home-economics program in order to broaden its scope and its usefulness to the child and to society; and fourth, to stimulate the development of home-making education to meet the needs of boys and girls on the varying educational and economic and social levels.

The commissioner's policies regarding the conferences are to set up the proper machinery for bringing together all the agencies concerned with education for the home and the child, to discuss in an impersonal way the various problems facing American home life with the view of stimulating studies which may pave the way to the solution for some of these problems. These investigations to be conducted as far as possible by persons properly equipped with the facilities for making studies.

The conference findings are reported in Home Economics Circulars 9, 10, and 16, respectively, of the Office of Education.

As a result of the Cincinnati conference, committees were appointed to (1) evaluate home-economics education concerning the following relationships: Professional, teachers,' curriculum, equipment and supplies, school patrons, and vocational guidance; (2) determine the minimum essentials of the home-economics curriculum to meet present-day needs; (3) develop criteria by which the accomplishments of home-economics teaching can be measured by standardized tests and rating scales; and (4) develop criteria by which a superintendent or principal of schools may judge the educational effectiveness of the home-economics department.

C. THE DEPARTMENT OF SUPERVISORS AND TEACHERS OF HOME ECONOMICS OF THE NATIONAL EDUCATION ASSOCIATION

Its functions and objectives.—The third outstanding event to stimulate stock taking in home-economics education for the elementary and secondary schools is the creation of the new department of supervisors and teachers of home economics in the National Education Association at Columbus, Ohio, July 1, 1930.

The foregoing department serves as a means for collecting and distributing information concerned with the best present practices in home-economics education. It stimulates studies, investigations, and researches in the newer developments of home-economics education. It helps to solve some of the vexing problems which are likely to face subjects introduced to an already overcrowded curriculum. It brings supervisors, teachers, and other interested persons into a homogeneous group for friendly and sympathetic discussions of common interests, problems, and new projects to be initiated into the public-school system. It extends assistance in solving perplexing problems arising in a local community. And it develops a fraternal feeling among all those persons engaged in public-school home-economics education.

Aside from aiding its own immediate personnel, the objectives of the new department are to stimulate interest in home-economics education throughout the Nation, by giving wide publicity to the

newer interpretations of the subject; enlisting the interest of superintendents and principals of schools and others who advise pupils in the election of school subjects; arousing the interest of the local and State parent-teacher associations and the National Congress of Parents and Teachers, as well as the leading psychologists, economists, sociologists, and educationists in education for home and family life in a society whose institutions are constantly changing.

D. SURVEY OF HOME ECONOMICS IN LAND-GRANT COLLEGES AND UNIVERSITIES

The survey of land-grant colleges and universities recognized the phenomenal development of home-economics education in a very short time as compared with the older academic subjects. It defined the purposes of this new field of education from the objectives stated by the home-economics leaders, curricula developed, administrative machinery set up for executing the work, and the student product resulting from this type of instruction.

It pointed out the progress made, the problems faced by home economics, and the developments needed to carry out the purposes of this education.

III. OUTSTANDING STUDIES COMPLETED AND IN PROGRESS

The land-grant college survey was the most comprehensive analysis of the present status of home-economics education in these institutions that probably has ever been made. Its findings are set forth in Office of Education Bulletin, 1930, No. 9, Vol. I, Part XI.

The Office of Education "Bibliography of Research Studies in Education" lists for 1926–27, 18 home-economics studies, 12 of which were theses for the M. A. degrees; for 1927–28, 27 studies, 14 of which fulfilled the requirements for the M. A. degree; for 1928–29, 36 studies, 19 of which were M. A. and 2 Ph. D. theses; and for 1929–30, 91 studies, among which are 56 M. A. and 4 Ph. D. theses.

The White House Conference on Child Health and Protection produced a number of searching investigations in several phases of home economics. Notable among these studies are those in nutrition, the child, and home and family life.

IV. SOME FORECASTS FOR THE FUTURE

The trends in home-making education, as set forth in this chapter, indicate the changing conceptions of home economics as realized by teachers of this subject, school administrators, and parents as well.

Whereas a few years ago home economics for boys was frowned upon, it is now fast becoming an accepted subject in our junior-high and senior-high schools. In fact, its inclusion in the boys' education is urged alike by parents and school administrators.

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The growing tendency in education of a recognition that the "home is not an institution to be improved by society but that it is the one institution which more than any other can itself improve society" is helping to increase "for girls some home economics" as a high-school requirement for graduation.

Although home economics is required rather universally in the seventh and eighth grades of our elementary and junior high schools, and in some cases in the third, fourth, fifth, sixth, ninth, and tenth grades, on the whole such a requirement for high-school graduation is not very general. But a decided increase in this direction is noted. Provisions are increasing for the observation of young children by home-economics classes on the elementary, junior high and senior high-school levels. The predictions point to a rapid development in this innovation.

The growth of adult classes in child care and training or parent education courses, under the direction and supervision of home economists, has been marked and promises to be speeded up considerably as a result of the findings of the White House Conference on Child Health and Protection.

Attention to better housing, æsthetic furnishings, and comfortable provisions for all the members of the family from the youngest to the eldest will receive considerably more attention in the future as a result of President Hoover's Conference on Home Building and Home Ownership.

The school lunch rooms, or cafeterias, in a number of places, form the laboratories for teaching adequate nutrition to all the children of the school system. This practice promises to grow by leaps and bounds in the near future.

Increased attention will be given more generally than now to the gainful vocations for which home-economics education can prepare girls and women and in some instances boys and men.

City and State courses of study will increasingly base their instructional materials upon scientific studies made in the realms of pupil interests, needs, and activities.

The radio and the talking pictures will play an increasingly important part in disseminating valuable home-economics information to the school and the home.

Finally, an integrated school program capitalizing the contributions of other school subjects as well as those of home economics to promote an even higher standard of living and a liberalized viewpoint of home and family life in an ever-changing social and economic society promises to be realized.

CHAPTER VII

AGRICULTURAL EDUCATION

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Contents.—Federally reimbursed classes—Agricultural extension work—Agriculture in the colleges—Special schools of agriculture—Educational activities of the Federal Farm Board—National Advisory Committee on Education—Agricultural education through national radio networks—Organizations of agricultural education workers—Important publications.

AGRICULTURE IN THE PUBLIC SCHOOLS

FEDERALLY REIMBURSED CLASSES

Expansion, 1928–1930.—Growth of the program initiated by the Smith-Hughes Act of 1917 continued through the biennium. Enrollments in federally reimbursed classes increased from 144,901 in 1927–28 to 188,311 in 1929–30. The greatest gain in enrollment was in evening classes for adult farmers, the numbers in such classes increasing from 35,192 in 1927–28 to 60,462 in 1929–30. High-school classes continued at their normal rate of expansion since 1917, gaining 16,787 pupils from 1928 to 1930, and reaching a total of 113,728 in the latter year. Day-unit and part-time classes remained practically constant in enrollment, reaching, respectively, 9,957 and 4,164 persons in 1929–30.[1]

Table 1 shows the gains in enrollment in each phase of agricultural education since the federally aided program was established in 1917–18.[2]

Table 1.—*Enrollments in federally aided agricultural departments in public schools, 1918–1930*

Year	Total enrollment	All-day schools	Evening schools	Day-unit schools	Part-time schools
1930 [a]	981,649	113,728	60,462	9,957	4,164
1929	886,849	106,111	47,283	9,922	5,128
1928	858,456	96,941	35,192	8,310	4,458
1927	784,986	89,390	26,227	5,698	3,622
1926	753,418	82,431	19,239	5,142	2,716
1925	676,687	70,958	15,835	4,002	2,330
1924	652,594	65,358	15,227	3,256	2,143
1923	536,528	57,978	9,319	1,911	2,090
1922	475,828	52,961	1,333	----------	5,942
1921	324,247	40,763	1,139	----------	1,445
1920	265,058	31,301	----------	----------	----------
1919	194,895	19,933	----------	----------	----------
1918	164,186	15,450	----------	----------	----------

[a] Figures for 1930 are provisional, subject to final audit of State accounts.

[1] Fourteenth Annual Report of the Federal Board for Vocational Education, 1930. Washington, Federal Board for Vocational Education, 1930, p. 82.

[2] *Ibid.*, p. 82.

The total cost of the federally aided program rose from $7,608,913.76 in 1927–28 to $8,749,072.31 in 1929–30. The percentage of the total fund which was contributed by the Federal Government dropped from 37.4 per cent to 36.3 per cent. Funds contributed by local communities increased considerably more than the funds from State sources.

Table 2 shows the increase in expenditures for agricultural education by the various units in the federally sponsored system from 1917–18 to 1929–30.[3]

TABLE 2.—*Expenditures of Federal, State, and local money for vocational agricultural education by years, 1918–1930*

Year	Total	Federal money	State and local money		
			Total	State	Local
1930 [1]	$8,749,072.31	$3,173,623.52	$5,575,448.79	$1,792,937.06	$3,782,511.73
1929	8,418,981.20	2,903,959.92	5,515,021.28	1,703,948.63	3,811,072.65
1928	7,608,913.76	2,844,464.24	4,764,449.52	1,539,661.36	3,224,788.16
1927	7,469,295.39	2,801,591.57	4,667,703.82	1,509,065.78	3,158,638.04
1926	7,164,460.46	2,656,886.13	4,507,574.33	1,571,426.97	2,936,147.36
1925	6,146,124.01	2,262,542.88	3,883,581.13	1,370,964.90	2,512,616.23
1924	5,253,912.86	1,897,807.50	3,356,105.36	1,203,486.62	2,152,618.74
1923	4,647,042.04	1,669,698.75	2,977,343.29	1,108,461.22	1,868,882.07
1922	4,058,440.36	1,435,475.22	2,622,965.14	1,039,487.89	1,583,477.25
1921	3,393,088.21	1,192,131.17	2,200,957.04	968,674.16	1,232,282.88
1920	2,437,286.06	889,886.29	1,547,399.77	678,824.43	868,575.34
1919	1,413,938.49	528,679.13	885,259.36	399,982.80	485,276.56
1918	739,933.27	273,282.68	466,651.19	220,713.98	245,937.21

[1] Figures for 1930 are provisional, subject to final audit of State accounts.

The number of high schools offering all-day or day-unit courses increased from 4,067 in 1927–28 to 4,487 in 1929–30.[4] Considering that there were in 1920 in the United States 13,751 high schools in centers of fewer than 2,500 people, it can be roughly estimated that vocational agriculture has penetrated about a third of our rural high schools. Since many rural high schools are too small to support such a program, the portion of schools suitable for vocational agriculture in which it is already taught is considerably more than one-third. The extent of the program for adult farmers and for employed farm boys is much less satisfactory. Approximately 1 per cent of the adult farmers of the United States were enrolled in federally reimbursed evening classes in 1929–30. The percentage of employed farm boys 14 to 21 years of age attending reimbursed part-time classes was probably less than 1 per cent, though the data on this point are less dependable than the data regarding percentage of adult attendance.

New legislation.—Expansion of the federally aided program was aided by the enactment on February 5, 1929, of the George-Reed Act which provided funds for agricultural and home-making education

[3] *Ibid.*, p. 92.

[4] Comparison of Twelfth Annual Report of the Federal Board for Vocational Education, p. 24, with Fourteenth Annual Report, p. 79.

over a 5-year period beginning July 1, 1929. Under the act agricultural education receives $250,000 during the first year and $250,000 additional each year until the maximum of $1,250,000 is reached in 1933–34. The general provisions of the vocational education act of 1917 apply in the administration of the new legislation except that the funds are prorated to the States on the basis of farm population rather than rural population. Under the act also the Federal Board for Vocational Education was granted an additional $100,000 annually which has made possible the employment of specialists in research, in teacher-training, in part-time and evening schools, and in agricultural subject matter, who devote themselves to the agricultural education field.

Increased emphasis on education for employed farmers and farm boys.—The general tendency, which has been evident since 1917, to emphasize the high-school program in vocational agriculture more than the program for employed farmers and farm boys has continued. However, in 1929–30, in certain widely scattered States (Arizona, Arkansas, Georgia, Iowa, South Carolina, and Virginia) the number of farmers taught exceeded the number of prospective farmers enrolled.[5] This situation had never occurred in any State previous to 1928.

The growth of enrollment in evening classes for farmers has been much more rapid than that in any other form of vocational agriculture. Until 1921 evening classes were not reported to the Federal Board for Vocational Education. In 1921, 1,139 persons were enrolled. As late as 1926 the total enrollment was only 19,239. In 1929–30, as noted previously, 60,462 farmers were reached.

In a very limited number of States there has been some gain in the enrollment in part-time classes for employed farm boys; in other States the enrollment has fallen off. The States which have been most successful during the biennium in attracting boys to this type of school are Arkansas, Georgia, New York, Ohio, South Carolina, and Wisconsin.[6] In the South, summer part-time schools have been introduced and have proved attractive.[7] In Wisconsin part-time work has gained in enrollment by the provision in addition to the traditional part-time school, which is in session several hours per day during the winter months and which teaches a variety of subjects besides agriculture, of two other types of part-time arrangements. One of these provides for meetings on Saturdays only and attempts to supplement agricultural with general education. The other is really an agricultural evening school for boys.[8]

Formation of a national organization for high-school and part-time students.—Since the inception of agricultural instruction in the public

[5] Fourteenth Annual Report of the Federal Board for Vocational Education, 1930, p. 82.
[6] *Ibid.*, p. 82.
[7] W. H. Garrison. Part-time Summer Schools. Agricultural Education, 1:5, October, 1929.
[8] L. M. Sasman. Our Part-time Program. Agricultural Education, 1:6, October, 1929.

schools there have been local organizations of agricultural students. Beginning early in the current decade a number of States formed State organizations. In November, 1928, these State organizations were affiliated in a national organization, The Future Farmers of America. Three annual congresses have been held. The 1930 congress was attended by 1,700 farm boys. On June 30, 1930, 36 States were represented in the organization with a total membership of 50,604. The organization has been made an integral part of the vocational agriculture program with national headquarters at the offices of the Federal Board for Vocational Education and State offices with the various State boards for vocational education.

The principal justification of the new organization has been as a device for teaching cooperation to rural boys. It has been found valuable also in creating interest in vocational agriculture, in bringing the boys and their accomplishments before the public in a desirable way, in carrying on community-service projects, in stimulating supervised practice activities, and in providing recreational programs for farm boys. In several States, most of them in the South, summer camps for future farmers are held annually.

Restatement of objectives.—Beginning with the 1928 regional conference there was considerable discussion in the north-central region of the need for new objectives in vocational agriculture. A committee of that conference produced a tentative list of objectives in March, 1929.[9] Meanwhile the agricultural section of the American Vocational Association had established a committee on objectives. In September, 1929, this committee was assembled at Washington for a protracted joint meeting with representatives of the Federal Board for Vocational Education. The report of this committee was accepted by the agricultural section at its annual meeting in 1930.[10]

Both of these committee lists reflect greater interest among persons in vocational agriculture in teaching more economical production, rather than merely in increased production; in emphasizing marketing instruction; in teaching cooperation; in stressing business management of the farm; in raising rural standards of living.

Curriculum trends.—There has been a notable tendency during the biennium toward the inclusion in the high-school course of study of more materials dealing with farm management, with agricultural institutions and agricultural cooperation, and with the mechanical and engineering aspects of farming. Emphasis on the technical aspects of crop and livestock production has not been lessened but courses have been lengthened to include the new phases.

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[9] W. H. Lancelot. Ultimate Objectives in Vocational Agriculture. Agricultural Education, 1:3, July, 1929.

[10] Report of Committee on Training Objectives in Vocational Education in Agriculture, with Suggestions as to Ways and Means of Attaining These Objectives. Federal Board for Vocational Education, 1930. 50 pp. (mimeographed).

In 1929–30, 36 States reported that 26.2 per cent of the time devoted to vocational agriculture in that year was given to farm mechanics.[11] This subject has largely developed in the vocational agriculture curriculum during the present decade. Devoted largely at first to purely manipulative activities of a very simple sort, the farm mechanics course has lately tended toward much greater attention to the managerial and engineering phases, such as the selection of farm machinery and equipment, the planning of farm buildings and farm layouts, the installation of farm electrical equipment.[12]

It has recently been realized more fully than previously that a person who is to manage a farm involving 6 to 10 or more enterprises must have more training in their management than is involved in their separate study. General management courses have therefore come in, usually in the last year of high school, to supplement and integrate the enterprise studies made earlier in the curriculum. These involve studies of farm organization, farm budgeting and accounting, marketing, financing, the management of labor, law as it relates to the farm.

Some have recently held that greater gains are likely to come to the farm people through greater effectiveness in working together than through increased efficiency in individual production. The presence of an acute agricultural surplus problem throughout most of the decade resulting from increased individual efficiency has intensified the desire to put into the public schools more that will aid farmers in their cooperative enterprises. Interest along these lines has greatly increased within the past two years. As a result more students in vocational agriculture are studying the causes of failure and success among farmers' cooperatives; more students are becoming acquainted with State and national cooperative organizations; more students are learning through practice to participate in farmers' group activities.

Changes in methods.—Discussions about methods in public-school agriculture have recently largely centered about the "conference method" of instruction.[13] Interest in this type of procedure has doubtless been increased because it has been found suited to the instruction of adults in evening classes, the older forms of classroom instruction having proved quite inadequate for adult groups. Undoubtedly, too, there has been carry-over from the methods used with adults to the methods used by these same teachers in instructing high-school groups. However, the conference plan of teaching was developed first with high-school groups; it is a type of "problem teaching," long well known to educators. It is significant that the

[11] C. T. Cheney. A Study of Vocational Farm Mechanics Courses in the High Schools of the United States, p. 88. Unpublished Master's Thesis, Iowa State College, 1930.

[12] *Ibid.*, pp. 81-85.

[13] See Conference Procedure in Teaching Vocational Agriculture. Bulletin No. 147, Agricultural Series No. 38, Federal Board for Vocational Education, June, 1930. vii+28 pp.

opinion is rapidly crystallizing that the best method for teaching adults is also the best method for teaching adolescents.

There has been a general tendency to replace manipulative activities and memorization of fact materials with problem solving. The intellectual content of vocational agriculture courses is being enriched generally. Greater definiteness of aim is emphasized.

Improvements in supervised practice.—The earliest supervised practice programs under the Federal vocational education act consisted of individual home projects comprising one or two animals or an acre or less of crops. Gradually the scope of projects has been increased until now they are commonly large enough to involve the use of commercial methods and machinery and to parallel in practicality the farming operations of adults.

Early projects ran for one year or less. Now they are planned to begin at the opening of the high-school period and to grow and continue indefinitely. The "long-time" or "continuation" project, which is designed to give a boy a start in farming is now the accepted type of project.

Class projects of various sorts have been introduced to supplement individual projects. Some are entirely class owned and class managed. Others are owned by a private individual who shares their management with a class group. In still other cases cooperative features are introduced in connection with the individual projects, class members cooperating as far as it is practical in buying, selling, breeding, advertising, and insuring.

Finally it has come to be generally accepted that a teacher's responsibility for supervised practice is not satisfied when he has satisfactorily managed the individual and group projects of his students. "Supplementary farm practice," under the teacher's direction, is also called for and various States have set up plans for systematizing it. Full use of this device involves making the most educationally of all of the opportunities each boy has for practical work in farming.

The tendency has been accentuated in the past two years to emphasize more strongly increased scope of project, lengthening of the project's duration, the use of class as well as individual projects and of supplementary farm practice. Rapid changes are taking place in the nature and effectiveness of this part of the instructional program.

Two aspects of project work have come in for special attention during 1928–1930—project accounting and project planning. Conspicuously in the States of the southern and Pacific regions and in Ohio and West Virginia there has been exhaustive study of the accuracy, completeness, and general worth of the project records being kept. These studies have uniformly revealed deplorable situations.

The most active committee of the agricultural section of the American Vocational Association has been engaged during the biennium in leading a movement for the correction of the conditions disclosed. Project plans have been found to be quite as inadequate as project records and numerous promising innovations have recently been introduced, particularly in connection with the preparation of project budgets and the making of estimates of probable financial returns and expenses.

Research in agricultural education.—In March, 1928, the North Central Regional Conference formed a committee on research which has served to stimulate and coordinate research in the region. In the spring of 1930 the Southern Regional Conference constituted a similar committee. In December, 1930, the agricultural section of the American Vocational Association reorganized its committee on research to function after the pattern of the regional committees previously set up. During 1931 it is expected that research committees will be developed in the two remaining regions and that rather extended sessions of each regional committee and of the national committee will be held.

Research received additional impetus during the biennium through the provision under the George-Reed Act of 1929 for a specialist in research in agricultural education to serve in connection with the Federal Board for Vocational Education. An important contribution of this specialist in his first year of work has been the preparation of a list of research publications in agricultural education from 1912 to 1930.[14] This list will be kept up-to-date through future publications.

There is apparently a growing realization of the neglect of research on agricultural education problems which has been characteristic until recently and a growing tendency to turn to research for answers to the questions which admit of a research approach.[15]

Selection of "master teachers."—A practice has recently grown up in the States of the South of selecting a "master teacher" from among the teachers of vocational agriculture. Beginning in 1928 this was made a regional affair and each year since a regional "master teacher" has been chosen. The procedures used in selecting these men are well described in a 1930 publication of the Federal Board for Vocational Education.[16]

National public-speaking contest.—To call attention to the need for preparing students in vocational agriculture for leadership activities a national speaking contest was first conducted in 1930. State

[14] Studies in Vocational Education in Agriculture. Miscellaneous publication No. 1060 (mimeographed), Federal Board for Vocational Education, February, 1930. iii+25 pp.

[15] See editorial, Research in Agricultural Education. Agricultural Education, 2:18, February, 1930.

[16] Master Teachers of Vocational Agriculture. Monograph No. 8, Federal Board for Vocational Education, March, 1930. iv + 16 pp.

and regional contests preceded the national event which was held at Kansas City, Mo., on November 17, 1930. Arrangements have been made for continuing these events in 1931.

STATE AND LOCALLY SUPPORTED CLASSES

High-school classes.—In a limited number of States high-school agriculture classes for which no Federal funds are received are common. The number of schools having such classes was reported for 10 States in connection with the land-grant college survey of 1928. Very few of the remaining States have such classes and in none of them is the number large. The relative occurrence of reimbursed and nonreimbursed classes in the 10 States where they are most common is shown in Table 3.[17]

TABLE 3.—*Agricultural positions in federally aided and other public schools in certain States, 1928*

State	In federally aided schools	Other agricultural positions	State	In federally aided schools	Other agricultural positions
Indiana	134	148	Mississippi	125	30
Iowa	109	630	Utah	26	36
Kansas	99	512	Vermont	6	21
Maryland	37	1	West Virginia	51	55
Massachusetts	67	5			
Minnesota	49	19	Total	703	1,457

Little information is available regarding the progress of classes of this type in recent years. A study showing the status of nonreimbursed classes in one State was made in Iowa in 1929–30. It showed the prevailing practice in rural consolidated schools having such classes to be to offer one year of high-school agriculture; other types of schools usually offered but a semester. Almost half of these classes were taught by the superintendents of schools. Fewer than half of the teachers had received their special training in agriculture at an agricultural college. The median teacher had 18.6 semester hours of credit in collegiate agriculture. While the study does not induce great enthusiasm for the work carried on under this plan, it appears from it that this phase of agricultural teaching is improving, that most of the persons in charge of it are trying to strengthen it, and that there is a definite place for it at this stage and during the immediately future stages of evolution in agricultural education.[18]

Further light is thrown upon the Iowa locally supported programs of agricultural education by a recent study of the characteristics of

[17] Data from Survey of Land-grant Colleges and Universities, II, 275, except that correction is made for Iowa to show schools offering courses in both semesters. Survey data show only schools offering agriculture in the first semester, 1928.

[18] C. M. Jerdeman. The Status of General Agriculture in Iowa Public Schools. Unpublished Master's thesis, Iowa State College, 1930. 67 pp.

a typical group of the pupils in these classes. Perhaps the most significant revelations of this study were that only 111 of 413 pupils were taking agriculture, according to their own statements, as a means of helping themselves to prepare for farming; that ony 27 per cent of these pupils had chosen farming as a vocation; and that 32 different occupations were represented among the vocational choices they expressed.[19]

To some extent high-school agricultural classes still exist for persons training to teach in rural elementary schools. These are reducing in number as normal training departments are being eliminated from the high schools. Their function has been changed also in that they now aim principally to acquaint prospective rural teachers with the major industry of the communities in which they will work as a background for effective teaching, rather than to equip them for teaching agricultural subject matter.

Elementary classes.—In the biennial survey report for 1922–1924 much concern was expressed regarding the practice believed then to be prevalent of attempting to give vocational training for farming in the rural elementary schools.[20] Probably this danger was considerably overestimated. At any rate, during the past two years very little has been heard regarding the desirability of early vocational specialization for farm boys or of keeping boys on the farm through a process of blindfolding them to other occupational opportunities. The general tendency now appears to be to criticize the offering of vocational agriculture even in the later years of the junior high school. It is possible that the development of a strong program of adult education in agriculture in connection with the public schools may have the effect in the future of further postponing specifically agricultural training. There appears to be growing support for a program of vocational guidance in the elementary and junior high schools of country regions which will present fairly to rural children all occupations, rural and urban, leaving to them at a more mature age the choice of the calling for which they will take vocational training.

AGRICULTURAL EXTENSION WORK

THE GENERAL EXTENSION PROGRAM

Extent.—In 1930 the agricultural extension service of the United States comprised a national extension director, with about 35 Federal organization and subject-matter extension specialists; about 60 State extension directors and assistant directors; about 410 State supervisors of county agents; about 1,100 full-time and part-time State extension specialists; about 4,000 county extension agents and

[19] H. E. Irons. Characteristics of Pupils in General-Agriculture Courses in Certain Iowa High Schools. Unpublished Master's thesis, Iowa State College, 1930. 81 pp.

[20] George A. Works. Agricultural Education. Bulletin No. 32, 1925, U. S. Bureau of Education, pp. 1–6.

assistants. There was an annual expenditure for the work of about $23,000,000. About three-fourths of the rural counties had county agents; about one-third had home demonstration agents; and only about one-eighth had club agents.[21]

Of the county extension agents employed on June 30, 1929, there were 2,624 agricultural agents, 2,452 of them white and 172 negroes. There were 252 white and 2 negro club agents.[22]

The scope of this program may well be contrasted with that reported by True for the year, 1920.[23] In that year the following agricultural extension workers were reported:

County agent work (men):	
Directors and State leaders	60
Assistant State leaders	147
County agents and assistants	2,024
Local agents (colored)	151
Total	2,382
Home demonstration work:	
State leaders	44
Assistant State leaders and district agents	116
County agents	810
Local agents (colored)	51
City agents	11
Total	1,032
Club work:	
State leaders	60
Assistant leaders	73
County leaders	251
Total	384
Grand total	3,798

During 1919–20 a total of $14,658,080 was spent on the cooperative agricultural extension program.[24]

In 1929, 929,744 adult demonstrations and 994,262 club demonstrations were carried in the United States.[25] More than 5,170,000 improved farm and home practices were introduced which were reported to be due to extension influence.[26]

[21] C. B. Smith and M. C. Wilson. The Agricultural Extension System of the United States. New York, John Wiley & Sons, 1930, pp. 17-18.

[22] M. C. Wilson. Statistical Results of Cooperative Extension Work, 1929. Extension Service Circular 124, May, 1930, p. 2. (Mimeographed.)

[23] A. C. True. A History of Agricultural Extension Work in the United States, 1785-1923. Washington, Government Printing Office, 1928, p. 202.

[24] *Ibid.*, p. 198.

[25] Wilson, *op. cit.*, p. 3.

[26] *Ibid.*, p 5.

The teaching strength of the extension forces has been greatly increased during the biennium by more general use of volunteer leadership to supplement the paid leaders. In Iowa alone in 1929 extension workers made use of 19,544 local leaders. [27] It is estimated that there are at the present time about 250,000 local leaders in the United States, 185,000 of whom aid in adult work while 65,000 assist with club work. These leaders give a minimum total of 2,000,000 days of service per year, the equivalent of the time of 7,000 people employed 300 days per year. [28]

New extension legislation.—Under the Federal Capper-Ketcham Act of May 22, 1928, $1,480,000 was made available annually for the further expansion of the agricultural extension program; $20,000 of this fund goes to each State and the Territory of Hawaii. The remaining $500,000 is distributed to the States on the basis of their rural populations, but must be matched by State funds to be received. Eighty per cent of this money must be spent for the salaries of county extension agents, men and women.

Under of acts May 16, 1928, and February 23, 1929, respectively, agricultural-extension service was provided for Hawaii and Alaska.

New projects.—The economic aspects of agriculture, including attempts for its improvement through cooperative activities, have received much additional attention during the years 1928–1930.

Regional, State, and district "outlook conferences" have been introduced for the discussion of the statistical data gathered by the United States Department of Agriculture relative to prospective supply and demand and to find uses for these data in local situations.

County programs for economic improvement have been more commonly worked out with extension assistance.[29] These projects call for the gathering of data regarding county needs, the interpretation of these data, and the framing of feasible programs based on them. County programs are usually planned and carried out through committees of representative farm people.

Cooperative marketing has received much assistance from extension forces during the past two years. In 1929, 572 county agents reported to the United States Department of Agriculture that 875 cooperative marketing organizations had been established during the year with their assistance. The membership in new cooperative marketing associations which 526 county agents had helped to found in 1929 was 112,032. The total value of the sales during 1929 of all the cooper-

[27] R. K. Bliss. Extension Service in Agriculture and Home Economics. Iowa State College Extension Service Bulletin, 1930, p. 5.

[28] Based on statement by Smith and Wilson, *op. cit.*, p. 119.

[29] For good examples see An Economic Survey of Goshen County, Wyo., Circular No. 25, Wyoming Extension Service, May, 1930, and the reports of farm and home economic conferences for Clark, Coddington, and Lincoln Counties, S. Dak., issued in 1930 by the Agricultural Extension Service of South Dakota State College.

ative marketing associations organized up to the end of that year by county agents was given in the agents' reports as $222,382,930.[30]

Farm Bureau and extension service relationships.—In 1920, Dr. C. B. Smith, now chief of the agricultural extension service of the United States, described the Farm Bureau as "practically a public institution, developed at the direct suggestion of agents of Government for the purpose of creating a channel through which the practical results of the research work of the Government might with certainty reach the people for whom it was intended." [31]

This statement was made but a year after the formation of the American Farm Bureau Federation and it was largely based on previous experience with State, county, and township units. With the growth of the national federation into a powerful farmers' organization, which is relatively independent of extension service control and which engages in furthering "class legislation" and promoting specific marketing projects, acting often in opposition to other farmer groups, the difficulties involved in the alliance of the extension service with such an agency have greatly increased and the desirability of the arrangement has more often been questioned.

Extension service and the public schools.—School people friendly to extension work have contended that its best possible alliance in a community would be with the local public schools and that its entire program could be satisfactorily carried on through a public rather than a quasi-public agency. Extension workers are generally alert and eager to use the schools so far as they are available to them but they have often been repulsed by school authorities unsympathetic to the introduction of extension activities. There seems recently, however, to have been an increase in friendliness between the representatives of the public schools and representatives of the extension forces which promises much for further development of cooperation advantageous to each.

The growth in good relationships between extension workers and public-school employees who come under the Smith-Hughes Act has likewise been encouraging. In several States memoranda of understanding have been worked out between these two groups; a memorandum bearing upon national relationships has likewise been developed. Most promising of all is the tendency on the part of both groups to find ways in which they may cooperate rather than to fix lines across which neither dare step.

A recent statement on Smith-Hughes and Smith-Lever relationships, contained in the section on extension work of the report of the

[30] Wilson, *op. cit.*, p. 24.
[31] True, *op. cit.*, pp. 166–167.

Land-Grant College Survey, outlines a comprehensive policy for the cooperation of these two groups.[32]

Both phases of work are meant to function in the interest of rural improvement. Both groups work with rural people—men, women, boys, and girls. Both are supported from Federal, State, and local funds. There can, therefore, be no justification for, or toleration of, unreasonable duplication of effort. All agreements must be based upon the needs of, and service to, local people rather than upon prerogatives of institutions or agencies. The staffs of the two groups combined are even now wholly inadequate to the task ahead. For each there is a large field that may be satisfactorily defined. It is the job of administrators to define these fields. Smith-Hughes activities are built around the public school. There is no disagreement as to function in the task of dealing with regularly organized classes made up of pupils in the school. Neither is there any question raised by extension workers in regard to projects for either youths or adults when they are an integral part of real organized class work. Difficulties arise when infrequent and general meetings with adults are held under the name of regular class work; likewise when home projects and demonstrations are carried out on the farms of adults who may attend infrequent meetings. This is not systematic class work. It is extension work and must be recognized as coming under the jurisdiction of extension agents. If Smith-Hughes teachers participate in such work it should be with the consent and under the direction of extension agents.

Similar statements can and should be made in regard to general community activities. No extension worker should deny the right of a Smith-Hughes teacher to become a part of the community in which he lives or to promote its welfare in every legitimate way. But all such activities that are concerned with the interests of all the farms and farm homes in the community which get beyond community boundaries and reach out over the county as a whole must be coordinated with the county program of work and under the direction of the extension agent or agents.

When boys and girls are regularly enrolled in Smith-Hughes classes, and hence are carrying on home projects and are likewise participating in 4-H club activities, great care should be exercised to make sure that the pupil's best welfare is given first consideration. It is quite possible that he can not properly carry the two lines of work. Certainly he should not carry on one project and get credit through both agencies. In case a choice is necessary the advantage of carrying a Smith-Hughes course under the careful guidance of a teacher resident in the community should not be overlooked.

Measuring the effectiveness of extension education.—Interest in the measurement of the results of extension education has recently been high. The most common measure has been the number of new practices introduced. In addition to determining the gross results in terms of changed practices, studies have been made of the methods of procedure and the characteristics of extension workers which make for the adoption of the largest number of new practices. These studies are reported in a publication of the United States Department of Agriculture, Extension Methods and Their Relative Effectiveness, issued in September, 1929.[33]

[32] Survey of Land-Grant Colleges and Universities, Vol. II, pp. 503–504. Washington, Government Printing Office, 1930.

[33] Technical Bulletin No. 106. 48 pp.

Radio education.—A number of college-extension services have the supervision of radio stations which are used in connection with their state-wide programs. These educational devices, unknown a decade ago, have already come to be a very important part of the extension machinery of certain States.

BOYS' AND GIRLS' CLUB WORK

Extent.—Enrollments in boys' and girls' club work during recent years is reported in Table 4.[34] A considerable number of the girls were enrolled in home economics rather than in agricultural projects. The enrollments in strictly agricultural projects are given in Table 5.[35]

TABLE 4.—*Junior club enrollments, 1923–1929, as reported by extension agents in 48 States*

Year	Number boys enrolled	Number girls enrolled	Total enrollment
1923	187, 277	271, 797	459, 074
1924	209, 810	300, 545	510, 355
1925	224, 633	340, 413	565, 046
1926	234, 078	352, 078	586, 156
1927	249, 553	370, 159	619, 712
1928	270, 534	393, 406	663, 940
1929	303, 509	452, 587	756, 096

TABLE 5.—*Enrollments in agricultural club projects, 1929, as reported by all county extension agents in the United States*

Project	Number of boys' and girls' clubs	Number of boys enrolled	Number of girls enrolled	Number of boys completing	Number of girls completing	Number of units involved in club work	Quantity produced
						Acres	*Bushels*
Corn	1,821	40,150	1,006	25,627	5,933	40,991	1,640,563
Wheat	35	761	6	445	2	3,259	46,645
Oats	19	670	26	386	22	1,052	25,584
Rye	9	205	5	77		125	2,115
Barley	5	295	1	275	1	311	5,114
Other cereals	30	2,914	177	1,677	92	3,967	96,489
Alfalfa	43	525	32	432	31	617	[a] 854
Soybeans	114	1,746	115	1,318	92	1,509	6,583 [a] 2,177
Sweetclover	2	82	2	35	1	59	[a] 36
Crimson clover	2	29	5	27	5	31	[a] 1
Clover (red, alsike, or white)	43	137	4	53	3	142	351
Cowpeas	130	1,309	14	868	11	1,067	8,142 [a] 1,111
Velvetbeans	21	218	8	164	4	194	5,200 [a] 141
Field beans	44	541	46	446	37	358	7,198
Peanuts	237	5,062	248	3,026	118	3,007	96,484
Lespedeza	0	41	1	31	1	36	[a] 51
Pastures	13	164	5	101	2	221	
Other legumes	104	1,229	50	726	27	803	7,430 [a] 763
Irish potatoes	981	13,620	1,426	9,759	814	4,729	463,972
Sweetpotatoes	230	4,420	299	2,622	170	1,683	236,725
Cotton	584	34,489	1,794	22,518	1,013	28,604	[b] 27,629,767
Tobacco	118	3,502	312	2,704	205	2,220	[b] 1,598,563

[a] Tons. [b] Pounds.

[34] Data provided privately by M. C. Wilson, in charge, extension studies and teaching, United States Department of Agriculture.

[35] Wilson, *op. cit.*, pp. 30–32. It should be borne in mind that many boys have engaged in more than one club project. The total number of different participating individuals is not available.

TABLE 5.—*Enrollments in agricultural club projects, 1929, as reported by all county extension agents in the United States*—Continued

Project	Number of boys' and girls' clubs	Number of boys enrolled	Number of girls enrolled	Number of boys completing	Number of girls completing	Number of units involved in club work	Quantity produced
						Acres	*Bushels*
Other special crops	48	835	63	544	31	605	
Tree fruits	40	1,104	54	685	43	723	11,429
Bush and small fruits	59	1,003	311	609	173	107	[3] 101,077
Grapes	14	249	41	131	38	70	[2] 45,295
Market gardening, truck and canning crops	178	3,185	751	1,937	498	1,653	98,031
Home gardens	3,810	22,088	102,848	14,169	59,821	2,595	73,848
Beautification of home grounds	1,883	3,692	79,002	2,246	44,109		
Forestry	330	4,796	812	3,325	527	[4] 116,711	
Dairy cattle	3,195	37,908	13,084	28,552	8,666	[4] 41,977	
Beef cattle	791	10,705	1,538	8,576	1,243	[4] 12,176	
Swine	2,231	48,381	3,348	31,215	2,165	[4] 72,869	
Sheep	650	8,273	1,621	6,114	1,247	[4] 27,836	
Poultry	4,297	41,045	58,819	24,797	35,223	[5] 1,882,769	
Other livestock	289	4,255	974	2,980	687	[4] 17,103	
Agricultural economics	393	9,423	2,388	5,678	1,701		
Beekeeping	88	977	197	657	83	[6] 4,461	
Miscellaneous agriculture	196	6,229	4,122	3,017	2,222	[7] 9,332	
Total	23,077	316,257	275,555	208,549	161,721		

[2] Pounds. [3] Quarts. [4] Animals. [5] Birds. [6] Swarms. [7] Units.

As previously indicated,[36] there were in 1929 in the United States 254 club agents serving about one-eighth of the agricultural counties. In addition, a large amount of club work was supervised by the 2,624 county agricultural agents and a host of unpaid local leaders.

It was estimated in 1926 that there were then 11,000,000 rural boys and girls eligible to club membership.[37] The total enrollment in 1929 having been 756,096,[38] it is apparent that only about 7 per cent of those who might receive club training have yet been touched in any one year.

Objects of club work.—One of the best statements regarding the purposes of junior club work is that of Dr. C. B. Smith, present chief of the national extension program.[39]

> 4-H club boys and girls are doers. They are taught high ideals and standards. They meet together, work together, cooperate, achieve. They play the game fairly. They demonstrate, earn money, acquire property. They learn and teach the better way on the farm, in the home, and in the community. They build up their bodies and their health through right living. They train their hands to be useful, their minds to think clearly, and their hearts to be kind.

Relationship to the public-school program.—In developing the junior club program some States have chosen to work largely outside the public schools while other States have linked closely their club and

[36] Page 15.

[37] C. B. Smith. Boys' and Girls' 4-H Club Work. Miscellaneous Circular No. 77, U. S. Department of Agriculture, October, 1926, p. ii.

[38] See Table 4.

[39] Smith, *op. cit.*, p. ii.

school programs. Twenty-four extension directors reporting in connection with the land-grant college survey of 1928 indicated that their club activities were entirely carried on outside the schools of their States; 24 others indicated that they worked with the schools.

A recent statement from the Federal office of club work lays down a recommended policy with respect to cooperation with the schools, as follows:[40]

> Cooperation with the schools in the conduct of club work is a fine thing where the school authorities welcome it. From the standpoint of permanent organization that reaches into the life of the people and develops their support and leadership, the organization of the work on a neighborhood or community basis, outside the school, but correlated with other educational agencies, seems to be most effective.

National camps.—During the biennium two national camps of importance have been developed by club workers: The National 4-H Club Encampment at Washington, D. C., and the Springfield (Mass.) Training School. The former camp is attended by outstanding active club members. The latter camp is for the training of club leaders and enrolls persons 18 to 24 years of age for two weeks with all expenses, including travel, paid. Only outstanding local club leaders can qualify for the Springfield camp.

LAND-GRANT COLLEGE SURVEY RECOMMENDATIONS REGARDING AGRICULTURAL EXTENSION

The most thorough national study of extension work which was made during the biennium was that of the land-grant college survey staff.[41] The recommendations contained in its report covering both general extension activities with adults and 4-H club work are reproduced here.

(1) Smith-Lever extension owes its present position to five contributing factors, namely, an historical ideal of direct service, substantial Federal support, private economic advantage, political consciousness, and cooperation supplemented by effective publicity.

(2) The statements of objectives and programs of work do not adequately recognize that Smith-Lever extension includes not only vocational training but also important social and humanistic purposes.

(3) The fundamental objective of Smith-Lever extension education, namely, development of rural people themselves, was stated as of first importance by but four institutions. It was pointed out that this objective is accomplished by fostering attitudes of mind and capacities which will enable rural people better to meet the individual and civic problems with which they are confronted.

(4) The lack of close articulation of extension with resident instruction and research work is a decided weakness in the organization of many institutions.

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[40] Extension Service Review, June, 1930.

[41] Survey of Land Grant Colleges and Universities, Vol. II, 435–556.

(5) Unless extension specialists bring back to their institutions pressing problems requiring research attention, they are only partially filling the job. This function has not been sufficiently emphasized.

(6) The lack of systematized organization of time, projects, personnel, and finances in some counties is hindering the attainment of maximum results.

(7) The most effective extension organizations are those in which the central supervisory force serves effectively and in which local people are securely welded into responsible active groups.

(8) The functions of the club agents in organization and supervision should be more fully supplemented by, and coordinated with, competent technical knowledge ordinarily available through trained agricultural and home demonstration agents.

(9) Smith-Lever extension is financed cooperatively, the Federal Government contributing 35 per cent, State funds 37.5 per cent, county funds 22.1 per cent, and private agencies 5.4 per cent (1927 budget).

(10) In spite of the fact that the adoption of the local-leader method has made it possible for home economics extension to reach more people and to secure adoption of more practices per worker and per dollar of cost than any other type of extension service, its ultimate success will depend upon the solution of the following problems: (*a*) Teaching subject matter and methods of presentation to local leaders in a relatively short time; (*b*) a method of adequate supervision of the teaching done by local leaders; (*c*) the present dependence upon acceptance and use of material presented by local people rather than by trained State specialists; and (*d*) the tendency for the county agent to become merely an instigator of events rather than a teacher of subject matter.

(11) If 4–H club work was charged its complete cost of operation it would include from one-fourth to two-fifths of the charge now being placed against county-agent work.

(12) The responsibility for obtaining State legislative appropriations for extension activities is now assumed by the directors in several States. Such requests should be included in the larger institutional budgets and promoted by institutional administrators.

(13) Present methods of financing county workers is a serious weakness in extension organization in the great majority of States. The most important needed change is the payment of salaries of all county workers from State and Federal funds and expenses from county funds.

(14) Sixty per cent of the agricultural counties are without home-demonstration agents. Increasing demands for this service deserve immediate attention.

(15) Normal development of the extension system has been arrested because of lack of money. To complete the organization on the basis of the plan now contemplated will require an accumulating increase of $1,000,000 a year for 10 years.

(16) Administrative measures being developed to raise the level of training and caliber of extension workers are not adequate and satisfactory, as evidenced by the facts that (*a*) 30 per cent of State leaders, 8 per cent of agricultural specialists, 15 per cent of home economics specialists, 17 per cent of agricultural agents, and 44 per cent of home agents are not college graduates; (*b*) one-half of the institutions that grant leave of absence for self-improvement of staff members do not grant this privilege to county extension workers; (*c*) one-third of the institutions fail to require even a bachelor's degree as a qualification for specialists and only five require that these extension teachers shall have had teaching experience; and (*d*) one-half do not require practical farm experience as a qualification for county-agent work.

(17) The conclusions concerning salaries are: (*a*) When training and experience are considered county extension agents as a whole are well paid compared to college teachers; and (*b*) the college teacher has a better chance of ultimately securing a higher salary than the agent, if both remain in their respective fields of work.

(18) One feature of great strength in the extension system is its close relationship to commercial organizations. Nevertheless, these relationships have resulted in failure to maintain in some instances the strictly educational functions of the extension service. The solution lies in strict adherence by responsible administrative officers to definite educational policies that have been laid down.

(19) If cooperation with the Farm Bureau is to continue successfully, all commercial activities developed by it must be carried on entirely separate from the county extension office or extension must seek other channels through which to develop its educational program.

(20) Commercial agencies have very properly cooperated with and strongly supported Smith-Lever extension activities. Reports of attempts at exploitation of these relations in the interest of business enterprises make very clear the need of promptly dealing with these situations. There can be no compromising with educational principles and responsibilities.

(21) All agreements between Smith-Lever and Smith-Hughes forces must be based upon the needs of, and service to, local people rather than upon prerogatives of institutions and agencies.

(22) The "outlook" economic material needs to be made more accurate and more adaptable to wider utilization by State specialists.

(23) Contrary to common belief and public expression, much extension service is being rendered in the field of agricultural marketing. Twenty-two institutions report extension marketing projects under way with 73 per cent of the time of the specialists expended on cooperative marketing. It is important that Smith-Lever forces adhere closely to their educational functions in this as in other fields of work and do not become involved in commercial activities.

(24) Programs of work consist often of a large number of projects hastily chosen and "thrown together" into a paper outline of activities. Projects should be fewer in number and the elements of each thoroughly analyzed.

(25) There is a very pressing need of more closely correlating the agricultural and home-economics projects.

(26) The demonstration method has reached its highest development in Smith-Lever extension but needs study and analysis prerequisite to further development in more projects.

(27) It is probably too soon to draw definite conclusions as to the value of the radio in extension work. Forty per cent of the institutions using the radio consider it valuable for dissemination of objective information, but at present seriously question it as a teaching medium.

(28) There is a decided tendency to base judgments as to efficiency and progress upon quantitative measures and to ignore the importance of quality in achievements.

(29) The per cent of completions of 4-H club projects is entirely too low. Whereas the average does not exceed 60 it should be at least 85 or 90.

(30) Unless 4-H club work supplements other educational activities and whets the desire for continuing education it is not meeting its opportunity. Sufficient emphasis has not been placed upon this objective by 4-H club administrators.

(31) If Smith-Lever education fails to reach its maximum effectiveness and to hold its true place in the general educational program it will be largely because of weak administration based upon expediency of action.

AGRICULTURE IN THE COLLEGES

ENROLLMENT INCREASES

The 1930 enrollments in forestry and veterinary science are the largest in the history of these two courses. Enrollments in general agriculture were at their height in 1916–17, fell in 1918–19 to 9,564 students, rose in 1920–21 to 14,493 students, dropped off again until 1926–27 to 11,179 students, and increased in 1930 to 12,524. Total enrollments in these three phases of agriculture have increased since 1927–28 from 13,149 to 14,677 in 1930. These data are given in Table 6.[42]

TABLE 6.—*College enrollments in agriculture, 1916–17 to 1929–30*

Year	General agriculture	Forestry	Veterinary science	Total agriculture
1916–17	15, 289	347	773	16, 409
1917–18	12, 760	152	533	13, 445
1918–19	9, 564	216	565	10, 345
1919–20	14, 275	452	643	14, 370
1920–21	14, 493	391	550	15, 434
1921–22	14, 398	629	450	15, 477
1922–23	13, 502	588	525	14, 615
1923–24	12, 381	834	470	13, 685
1924–25	11, 715	1, 003	488	13, 206
1925–26	11, 412	1, 074	471	12, 957
1926–27	11, 179	1, 011	520	12, 710
1927–28	11, 461	1, 076	612	13, 149
1928–29	12, 604	1, 195	760	13, 559
1929–30	12, 524	1, 269	884	[1] 14, 677

[1] Subject to revision.

LAND-GRANT SURVEY RECOMMENDATIONS

The availability in the report of the land-grant college survey of detailed information regarding the recent status of agriculture in the colleges makes unnecessary a full treatment in this report.[43] The general survey recommendations touching collegiate agriculture follow.

(1) Preparing students for general farming is no longer a primary function of the resident undergraduate work of colleges of agriculture in the land-grant institutions. Social, economic, and educational advances require that this fact be recognized frankly by the institutions and by their constituencies.

(2) The objectives of higher education in agriculture are increasingly and properly those of preparing: First, research workers in the scientific and social fields related to agricultural production and distribution and to rural life; second, extension workers for service in the dissemination of knowledge concerning the applications of scientific and economic truth to the problems of rural living; third, workers in all types of business and commercial activities related to agricultural production, distribution, and service; fourth, teachers of vocational agriculture and science in the public high schools; fifth, public servants in the

[42] Furnished by Dr. Walter J. Greenleaf, U. S. Office of Education.
[43] Survey of Land Grant Colleges and Universities, Vol. I, 715–788.

investigating and regulatory departments of the State and National Governments; and sixth, overseers and managers of specialized and large-scale farm enterprises.

(3) The basic problem of organization of agricultural work in the land-grant institutions is one of devising methods for integrating and coordinating resident teaching, experiment-station research, and extension activities. Tendencies in a number of institutions to develop research and extension in relative isolation from resident teaching require administrative attention.

(4) Minute specialization of departmental organization, with excessive departmental autonomy, tends, in certain institutions, to duplication of work, expensive instruction, and offerings inappropriate to undergraduate work, especially during the first two years of the college course.

(5) In view of the necessity for specialization in serving the diversified needs of modern agricultural research, extension, teaching, and business, and in view of the widespread development of public junior colleges, it is advisable that the land-grant institutions give consideration to reorganization of the agricultural division into junior and senior divisions, with specialization delayed until the end of the second year. Such reorganization is in harmony with current tendencies in higher education and not incompatible with any of the objectives of college education in agriculture except the vocational one of preparation for general farming.

(6) The standard for training for agricultural staff members is being raised in harmony with the development of instruction that emphasizes scientific and economic objectives. Continued emphasis upon attainment of advanced degrees by the staff and upon study of subjects in education applicable to the problems of college teaching is desirable.

(7) The salaries of agricultural staff members serving for 11 months each year are not commensurate with those who serve 9 months. An adjustment of the salary scales upon the 9 and the 11 months' basis is urgently recommended.

(8) The number of students who enroll in agriculture varies with the condition of agricultural industry. This is true, although emphasis upon the training of research and extension workers, high-school teachers of agriculture and science, for State and Federal employment, and for business more or less closely related to agriculture tend to make this variation less acute than when the objective is primarily a back-to-the-farm one.

(9) Agricultural courses and curricula, and, to a considerable extent, departmental development, reflect a decided tendency to increased economic and social emphasis upon the part of the agricultural colleges. This trend has not resulted in weakening of interest in the physical sciences.

(10) Experimental scientific investigations of certain educational problems extending over a period of years and conducted cooperatively and simultaneously by a number of agricultural divisions are recommended. Studies of this kind should be carried on in close cooperation with institutional schools of education or under the direction of educational technicians employed for the purpose. The following fields are suggested: (*a*) The different effects upon subsequent student work of teaching certain sciences in the college of agriculture and in the other basic science divisions; (*b*) method of coordinating the content of specialized courses in agriculture offered during the first two years of college; (*c*) the effects of farm practice requirements upon educational progress and practical success; (*d*) methods of providing practice work for prospective extension workers; (*e*) the validity of prerequisites now prescribed with reference to success in subsequent work; for example, general science prerequisites for applied work in agriculture; (*f*) the effects of different combinations and sequences of subjects upon students of equal ability; (*g*) methods of determining the degree and effects of the previous

training of entering students (Smith-Hughes students especially) with reference to ability to carry on specific college subjects in agriculture and means of adapting beginning instruction in college to such individual differences of preparation (not mental ability) as are found; (*h*) the effects of different laboratory methods and means of determining the most effective length of the laboratory period for each phase of a single course; (*i*) effects of class size upon student learning in various subjects and during the different years of college work; (*j*) methods of instruction designed to increase individual student responsibility; and (*k*) requirements that may serve as substitutes for class attendance and their effect upon progress and learning of students in different subjects and at different levels.

TRAINING OF TEACHERS OF AGRICULTURE

The recommendations of the survey staff relative to the development of the departments of agricultural education in the land-grant institutions were reported separately from those affecting the agricultural colleges as a whole.

1. Agricultural education is a major concern of the land-grant institutions of most of the States. One of the best means now available for performing this function is through the training of teachers of agriculture to serve in the public schools.

2. The training of teachers of agriculture for the public schools is already one of the most important functions of our agricultural colleges. It is a rapidly expanding program. As yet it has scarcely reached a quarter of its probable eventual scope.

3. Emphasis on the preparation of agricultural teachers has mainly been on the preparation of teachers for the Smith-Hughes system. This program should receive continued and increasing attention, but there are other important phases which should be developed.

4. The ultimate goal in agricultural education is to place a satisfactory form of such training within the reach of every farmer and of every person who is preparing for farming. To do this within a reasonable length of time calls for the expenditure of a considerable amount of effort and money on the part of each State supplementary to the assistance provided by the Federal Government. No State should be content with the program which results from merely matching the Federal funds available for agricultural education.

5. Unless there is a change in the financial policy with respect to training teachers of agriculture, control of such teacher training is likely to pass largely out of the hands of the land-grant institutions even though the program continues to be conducted through them. In 1928–29 these institutions contributed by 9.39 per cent of the salaries of the persons employed in the federally sponsored program of agricultural teacher training, which comprise almost all of the agricultural teacher training under way. In addition, buildings and equipment were provided by the land-grant institutions. However, the major share of all costs was borne by the Federal Government or by the State boards for vocational education. As yet there is little complaint of excessive domination by authorities outside the colleges but there is no question that the program of agricultural teacher training is being greatly influenced by the source of the funds which support it, and to a considerable extent adversely, mainly because of the tendency produced to neglect important phases which do not interest those who finance the teacher-training program.

6. The articulation of agricultural education with other phases of teacher training in the land-grant college needs to be materially improved through some

plan of centralization of the educational forces within each institution. At the same time care must be taken that relationships with the agricultural college are kept close.

7. The land-grant colleges need a much closer relationship with the public-school systems of their States. This is particularly true of the separate State colleges. Members of the staff in agricultural education should develop affiliations with general education. Some means should be provided for keeping school administrators in touch with the agricultural education program.

8. Whenever it is possible to do so the land-grant institutions should carry out their programs of agricultural education through the local public schools, rather than through other local agencies. The work of the extension departments should be unified with that of the departments of agricultural education in conducting such agricultural programs in the public schools.

9. The land-grant institution is the logical one in each State in which to train all teachers of agriculture. When this responsibility has been taken over by other types of institutions it is commonly because of the negligence of land-grant college officials. This situation should be avoided by the provision of strong programs in the land-grant institutions for the training of all kinds of teachers of agriculture adapted to all sorts of schools to be found in a State. There appears to be no sound reason why most of the teaching of agriculture should be done by persons who have not been trained in an agricultural college as is now the case in certain States.

10. In order to make it possible to place teachers of agriculture in all the sorts of situations which exist it will be necessary that they be trained for teaching subjects other than agriculture. There is no reason why this can not be done satisfactorily in most land-grant institutions.

11. Departments of agricultural education should have closer relationships with the curricula for prospective agricultural teachers. Where the numbers warrant it, courses should be set up cooperatively which provide not only for the professional subjects required, but for the subject matter necessary for such teachers. There should be special curricula, preferably four years in length, for teachers of agriculture in Federally aided schools and also for other agricultural teachers.

Curricula now in use need strengthening through greater attention to agricultural economics, agricultural engineering, and the social sciences, and through more general observation of some of the fundamental principles of curriculum construction.

Persons entering teaching from other courses should be expected to supplement these courses with agricultural, as well as professional subjects, so that their training will approximate that of persons graduating from the course in agricultural education.

12. Each institution should have definite arrangements for recruiting desirable students to prepare specially for the teaching of agriculture. Departments of agricultural education should not depend upon the other departments of the institution for students. Closer association with the other branches of teacher training in their respective institutions, resulting from the establishment of a central school of education, would in some cases make it much easier to divert desirable persons from preparing for overcrowded teaching fields into preparation for the teaching of agriculture.

13. Some interchange of teachers among States is desirable but each land-grant institution should be expected to train approximately as many teachers of agriculture as are required in its State. A few institutions fail to meet this criterion.

14. There is great need for research upon the problems of agricultural education. All other agricultural departments in land-grant institutions typically have rather abundant funds for research. The existence of problems which are suited for rewarding investigation should be recognized in this field as well. There has been much waste because it has been necessary for administrators and teacher trainers to proceed without adequate knowledge based on research.

15. In most institutions the training and qualifications of the staff in agricultural education need to be considerably improved. A considerable number of staff members need to supplement their training in agriculture by taking a broader type of training, particularly in the field of general education. Another group has had extensive professional training in education but lacks an adequate acquaintance with agriculture. Those who are responsible for the supervision of student teaching are in particular need of further training.

16. There needs to be further attention to student teaching. All institutions are requiring it but in some instances the requirement seems to be little more than nominal. In nearly all institutions the status of the persons in charge of student teaching should be improved materially.

17. The land-grant institutions have a responsibility for seeing that agriculture is recognized in the rapidly developing junior colleges. The principal means of discharging this responsibility is through the preparation of adequate numbers of agricultural teachers for these institutions.

18. The agricultural education department should have representatives in the extension department of each land-grant institution, as a means of giving better service to and maintaining better relationships with the schools of the State, and also of unifying the programs of the agricultural education and the agricultural extension departments.

19. Departments of agricultural education should recognize a responsibility for keeping up to date and useful its graduates who are engaged in teaching. This involves provision for familiarizing them with new agricultural subject matter as it develops, as well as for further professional training. Systems of extension work or itinerant teacher training, if used, should make maximum provision for work with groups, to avoid undue expense.

20. Persons trained in agricultural colleges in agricultural and well-balanced related subjects, who have had consolidated school teaching experience and special training in administration and supervision in a college of education, are ideal persons to serve as superintendents of consolidated schools. The agricultural colleges should make definite provision for the type of training which will start such persons on their way. They have many students who would be attracted by such careers.

21. There is room for the development of a limited number of situations in which graduate work in agricultural education extending to the doctor's degree can be provided. Care must be taken in developing those that there is ample provision for strong supplementary work in general education as well as for specialization in agricultural education.

22. Departments of agricultural education may be expected to play a part in helping the land-grant institutions to throw their influence toward the improvement of the whole rural education situation.

SPECIAL SCHOOLS OF AGRICULTURE

Little change can be noted in the status of subcollegiate agricultural courses outside the Smith-Hughes system. A limited number of special agricultural schools persist, principally in New York, Wiscon-

sin, and Minnesota. A few collegiate institutions administer courses of less than college grade; the most conspicuous recent development of these courses has probably been at the Massachusetts Agricultural College and at Clemson College.

There is a growing realization in certain quarters that the present facilities for giving systematic and relatively prolonged agricultural instruction to the masses of farmers are very limited and that it is likely that they always will be without the inclusion of special schools for training "dirt farmers." Many small communities can not hope to avail themselves of Smith-Hughes facilities. Until larger rural units are provided, the boys in such communities must either go untrained or attend a 4-year agricultural college. There are many boys even in communities having vocational agriculture in the public schools who might be better served by special agricultural courses which would take them out of their home communities during their period of training. It is not unlikely that there may be a recrudescence of interest in schools of this type during the next few years.

EDUCATIONAL ACTIVITIES OF THE FEDERAL FARM BOARD

A new national agency has come to figure largely in agricultural education programs throughout the country with the establishment of the Federal Farm Board under the agricultural marketing act of June 15, 1929. Though not primarily concerned with education, the board has increasingly realized that its program can only come into fruition through a far-flung educational program. Extensive use has been made from the first of the State extension services and the county agricultural agents. In September, 1930, a memorandum of understanding was drawn between the Federal Farm Board and the Federal Board for Vocational Education. During November, 1930, a series of four regional conferences were held at Chicago, Chattanooga, Dallas, and St. Paul between State representatives of the Board for Vocational Education and representatives of the Federal Farm Board. A set of publications dealing with cooperative marketing and intended for use in evening schools has been jointly prepared and distributed by the two boards.

NATIONAL ADVISORY COMMITTEE ON EDUCATION

Considering that agricultural education receives more Federal funds than any other type of education and that the Federal budget for agricultural education for the year ended June 30, 1929, was about sixty-five times the total budget of the United States Office of Education, there was great significance for workers in that field in the appointment by President Hoover, in 1929, of a National Advisory Committee on Education to investigate the whole matter of Federal and State relationships in education.

The preliminary report of this committee, issued on July 4, 1930, suggested the repeal of all existing legislation appropriating Federal money for educational uses and the substitution of a flat grant to the States for educational purposes to be utilized as the States might see fit. This proposal has received the disapproval of the strongest organizations representing workers in agricultural education, the Association of Land-Grant Colleges, and the American Vocational Association, at meetings held during the fall of 1930. No revision of the committee's tentative proposal has yet been issued.

AGRICULTURAL EDUCATION THROUGH NATIONAL RADIO NETWORKS

The biennium has witnessed the introduction of a daily radio program emanating from the United States Department of Agriculture and accessible to nearly every farmer in the country, the "National Farm and Home Hour." In addition to programs directly developed by the Department of Agriculture there have been many programs sponsored by agricultural organizations, such as the Grange, the Farmers' Union, the Farm Bureau, the 4-H clubs, and the American Country Life Association.

ORGANIZATIONS OF AGRICULTURAL EDUCATION WORKERS

The important organizations of workers in agricultural education have remained largely unchanged during the biennium: The Association of Land-Grant Colleges, the Association for the Advancement of Agricultural Teaching, the agricultural section of the American Vocational Association, the four regional conferences affiliated with the Federal Board for Vocational Education, and the national organization of county agricultural agents. Meetings of all of these groups have been held regularly. A new major organization of workers in agricultural education was formed at Chicago on December 5, 1930, the National Cooperative Extension Workers' Association.

IMPORTANT PUBLICATIONS

Allusion has already been made to most of the important publications in agricultural education during 1928–1930. Special mention should, however, be made of certain of these.

Two new monthly publications of great significance have been launched: Agricultural Education, official magazine of workers under the Smith-Hughes Act, which first appeared in January, 1929, and which had attained a circulation of 3,600 by the end of 1930, and the Extension Service Review, first published in 1930 by the United States Department of Agriculture, which performs a similar function for Smith-Lever workers.

Two comprehensive treatises have appeared written by the man who probably participated longer and more widely in agricultural education than any other American, Dr. A. C. True, whose death was one of the great losses of the period this report recounts. One of these works deals with the history of agricultural education in a general way, the other with the history of extension work in agriculture.

Some of the most significant publications of the period, 1928–1930, are listed below.

Agricultural Education. A monthly magazine managed by an editorial board chosen by the agricultural section of the American Vocational Association and published by the Meredith Publishing Co., Des Moines, Iowa.

Agricultural Education, Organization, and Administration. Bulletin No. 13, Agricultural Series No. 1, Federal Board for Vocational Education, 1930. vii, 63 pp.

Agricultural Evening Schools. Bulletin No. 89, Agricultural Series No. 17, Federal Board for Vocational Education, 1930. vii, 15 pp.

Extension Service Review. A monthly publication of the Extension Service, United States Department of Agriculture.

Fourteenth Report of the Federal Board for Vocational Education: 1930. Washington, Federal Board for Vocational Education, 1930. xi, 129 pp.

Master Teachers of Vocational Agriculture. Monograph No. 8, Federal Board for Vocational Education, March, 1930. iv, 16 pp.

Report of the Committee on Training Objectives in Vocational Education in Agriculture, with Suggestions as to Ways and Means of Attaining these Objectives. Washington, Federal Board for Vocational Education, 1930. 50 pp. (Mimeographed.)

Shepardson, Whitney H. Agricultural Education in the United States. New York, The Macmillan Co., 1929. 118 pp.

Smith, C. B., and Wilson, M. C. The Agricultural Extension System of the United States. New York, John Wiley and Sons, 1930. x, 402 pp.

Studies in Vocational Education in Agriculture. Miscellaneous Publication No. 1060. (Mimeographed.) Federal Board for Vocational Education, February, 1930. iii, 25 pp.

Survey of Land-Grant Colleges and Universities. Vol. 1. xxviii, 998 pp. Vol. 2. iv, 922 pp. Washington, Government Printing Office, 1930.

The Conference Procedure in Teaching Vocational Agriculture. Bulletin No. 147, Agricultural Series No. 38, Federal Board for Vocational Education, June, 1930. vii, 28 pp.

True, A. C. A History of Agricultural Education in the United States, 1785–1925. Washington, Government Printing Office, 1929. ix, 436 pp.

——— A History of Agricultural Extension Work in the United States, 1785 to 1923. Washington, Government Printing Office, 1928. iv, 220 pp.

Wilson, M. C. Extension Methods and their Relative Effectiveness. Technical Bulletin No. 106, United States Department of Agriculture, September, 1929. 48 pp.

——— Statistical Results of Cooperative Extension Work, 1929. Extension Service Circular 124, May, 1930. 32 pp.

CHAPTER VIII

ART EDUCATION

By Royal Bailey Farnum
Educational Director, Rhode Island School of Design

Contents.—Early conditions—Beginnings of art education—Chart of art trends—Changing point of view—Curriculum changes in the United States—The art teacher—Elementary art education—Major art experiences—Correlation of art—Art in the junior high school—Art in the senior high school—New course in New York City—Encouragement of the talented—Expressions from art leaders—Summary of aims in art education—Other factors affecting art education

Art education in the United States has never been on a firmer footing than at the present time. It faces a future secure in the knowledge that during the past 10 years its social, economic, and educational values have been demonstrated and acknowledged and generally put into practice. Educational leaders no longer ignore it; rather one finds an attitude of receptivity and a desire to require it to function in every department of the school system. Not one but many causes have contributed in bringing this about. Perhaps the most important of these is a changing society and a new point of view.

EARLY CONDITIONS

Settlers in a new country are primarily concerned with the sheer problem of living. Food, shelter, and clothing are the first essentials. The habits and social conditions which attend the satisfaction of such demands necessarily form a somewhat fixed background upon which future living is markedly influenced. The earlier hardness of life establishes a mental outlook which persists even for generations. Only the strong are revered and only the rugged are approved. What is true of life is true of living, and it was but natural for early Americans to look askance at the seemingly effeminate characteristics of art—art being considered chiefly in terms of painting.

Painting had little or no place in the rough interiors of sixteenth century farmers' homes. That art could exist in their crops, in their homespun, or in their houses and hand-timbered barns never entered their minds. Trivial art was narrowly fixed in their minds, and in keeping with their lasting physique this mental point of view outlived two and three generations.

Thus up to the period just preceding the World War a general recognition of the value of art in education did not, could not exist.

If an enlightened few fought for it, they but planted the seed; it was impossible that they should reap. Numerous factors paved a way for present trends, among them the establishment of schools of art and design, national and international expositions, and the development of manufacturing industry in communities having excellent water power.

BEGINNINGS OF ART EDUCATION

Up to the opening of the nineteenth century individual attempts had been started to maintain painting and drawing classes in the large cities such as Boston, Philadelphia, and New York. In a few "select finishing" schools the arts of embroidery, drawing, and music were presented for those who otherwise had little to do. But early in 1800 experiments were made in more formal education, and by the middle of the century there developed in a few sections a conscious awakening with respect to the contribution of art in both education and industry.

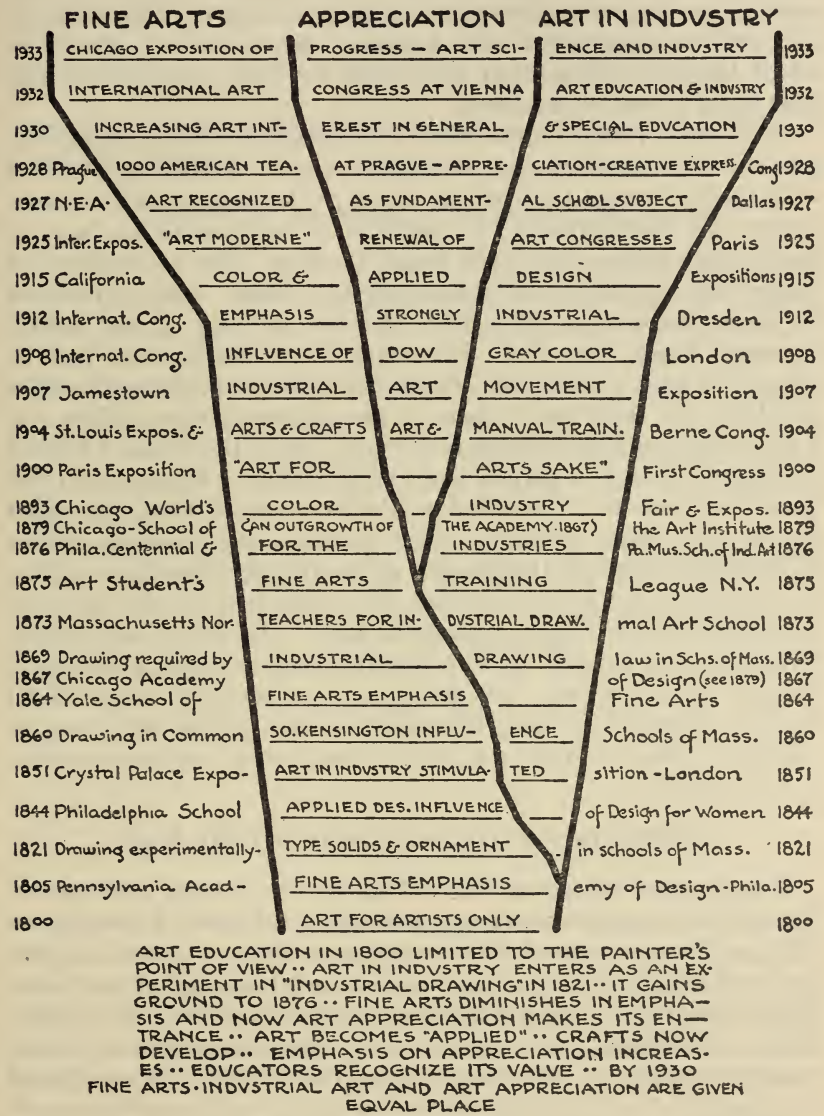
Probably the great Crystal Palace Exposition of London in 1851 first started manufacturers along the new line of thought. Certainly Great Britain was deeply shocked to note the inferior quality of her industrial products. Her state of mind must have reacted with like effect in the land of her earlier colonies, for in 10 years' time the leading industrial State in America, Massachusetts, was passing laws to require "industrial drawing" as a common-school subject, and a few years later to establish a school to train the teachers needed for this new subject and to employ a State director to promote the work. Then were established other schools in the country, some emphasizing the "fine" and some the industrial character of art expression.

CHART OF ART TRENDS

The accompanying chart illustrates the earlier as well as the later influences at work on the present status of art in education.

The base is narrow, with the rising line allowing much greater space to the fine-arts side of art education. Industrial art was just beginning to awaken. Ascending toward the top the "fine arts" diminishes and industrial art increases until a new element "art appreciation" enters at about the time of the Chicago World's Fair. It remains as a thin wedge in the subconscious mind of education, gradually expanding as the war period depresses both the fine and industrial arts. During the war, the practical side of art gradually gains recognition, chiefly through posters and the field of the graphic arts. In the last decade the "fine arts" is returning to its earlier po-

sition, primarily because of our outstanding architecture. Art appreciation has now become a conscious factor in general education,



and since the Paris Exposition of 1925 our industrial art is making a phenomenal growth.

CHANGING POINT OF VIEW

Up to and during the early period of the Great War older pedagogical viewpoints still maintained general supremacy. The three R's continued to reign supreme. Mass education and the "school system" controlled the product just as rigidly as the machine gripped and limited industry and her output. But when once aroused human society can be both ruthless and without tradition. Custom must give way to imperative new demands. Great nations, therefore, swept historical methods to the winds, red tape was slashed, and men began to control machines.

So in these United States what our forefathers did came rapidly to have little bearing upon immediate needs. Action, speedy and with results, became the order of the day. In manufacture, in agriculture, in transportation, in methods of communication, and in many other ways a new light began to shine. Not everywhere, of course, but certainly in the larger, effective areas. And all this had its slower influence in other fields of social activity. A new mental approach began to evolve. For example, the spirit of giving developed to such a point that science was called in to determine what should be the individual's share in the common service. Here was a fresh, quite unheard-of situation, which, under the stress of fevered excitement, became a normal mode of procedure. Surely up to this period any action of this kind would have reaped loud resentment not to say active objection. Such generous and scientific giving undoubtedly infected the essence of boards of education and the town fathers, for more beautiful school plants than one had ever dared breathe about began to blossom forth. An area of educational daring now set in, and, as with war trappings, so with pedagogical harness, tradition was set aside and unhampered experimental activity began to develop especially in our private and practice schools. Thus the stage was set for the decade commencing with the year 1920.

INTERNATIONAL CONGRESSES UP TO THE WAR[1]

Meantime art education was holding its own, though little more—International congresses starting with the great Paris Exposition of 1900 had been organized with inspiring exhibits of school children and gatherings of art teachers from all great nations of the earth. Other countries, however, took them more seriously than the United States. Delegates were appointed by governments and official reports were made. The London Congress of 1908 had so affected

[1] Congresses of the International Federation for Art Education, Drawing and Art Applied to Industries.

Germany, for example, that the Emperor took steps immediately to promote special schools of art and art courses in art-using industries, just as the great Napoleon had done years before in France. In the Dresden Congress of 1912, the fruits of this move of only four years' duration were in marked evidence in the exhibits of the Teutons. As a result the world center for the toy industry had been transferred from Switzerland to Nuremburg; the best of printing was now found in Leipsig, not London; and likewise dress fittings (now no longer in fashion) were sought by international trade in Dresden, not Paris. The war interrupted the continuity of these 4-year events which have since been reestablished through the untiring efforts of a few inspired art leaders abroad.

CURRICULUM CHANGES IN THE UNITED STATES

Some one has remarked that the war served to speed up progress by many years. This is unquestionably true in art. The lessons of that period of horror lowered the floodgates of new adventure and daring. Science and invention gave impetus in other directions. So in art, new modes of expression followed new trends of thought. In education art also began to be loosed. By 1920 the fetters of tradition were less binding, and the thought of art as formerly confined to painting now was enlarged to cover a far greater range of human activity.

It was natural that a general accounting of stock must follow such a stupendous cataclysm as shook the world from 1914 to 1918. In the process of stock taking it likewise was inevitable that questions of aim, objective, worth, comparative value, method, etc., should now be raised, not only in the traditional three R's but in all subjects whose service previously had been lightly considered. An interval of school surveys and curricula studies set in, often with a scientific curriculum maker in charge. Previously an art teacher made her own course of study, or, where the specialist was not employed, the regular teacher may have followed quite literally a graded drawing textbook. Now, however, the science of education was applied to the special field with the result that soon art, music, dramatics, etc., took on a new meaning, and were adopted into the enlarging fold of general curricular activities. That for which art education leaders had been vainly striving for 50 years was now bearing fruit, but with it came a new conception of the job of teaching art. The old drawing lesson in a segregated series of three 30-minute periods a week must give place to a correlated project related to many other subjects. Formal drawing now began to receive less time, art a greatly increased amount, as it began to function more successfully.

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THE ART TEACHER

This new trend called for a broader point of view and a far wider horizon of experience. To-day the special teacher is like the college student; he majors in a given course but must study a number of other subjects along with it; so the art teacher specializes but enriches her background with other things. Says William G. Whitford:[2]

> It is necessary for teachers and directors of special subjects to engage in a critical analysis of the problems pertaining to their particular field of education and to bring to them all the knowledge it is possible to obtain. Valid judgments, just evaluations, and right educational procedures are essential in this task. For this reason a broad educational background in addition to adequate training in subject matter is required of art teachers and supervisors to-day.

The past decade has witnessed an increasing number of art teachers who have been absorbed in the schools of the country but with far too few young men going into the work. Two types of teaching positions are open in the public-school field, classroom instruction, and supervision. The individual art instructor is seldom found in the lower grades except in the more progressive schools where the departmental scheme is used. For the classroom teacher the opportunities usually are found in the junior and senior high schools, where the art room is equipped for this special kind of work.

One might think that the administrative side of supervision would attract young men, but two erroneous ideas tend to prevail, the one that it involves a great deal of actual teaching of little children, the other that one's technical ability soon becomes stagnant. With elementary teaching now consisting chiefly of guidance to individual self expression, most of which is done by the regular grade teacher, the man supervisor would direct, seldom teach, and as for technical advancement, that lies wholly within the powers of the individual.

The following summarizes the duties of the present-day art supervisor, a task of no mean proportion:

DUTIES OF SUPERVISORS OF ART

(Organize, guide, direct, stimulate)

Organize the art department.
Effectively administer the department as a unit.
Organize and develop the course of study.
Select and organize the subject-matter content. Plan schedules (time allotment and distribution of exercises and projects).
Plan survey of the art needs of the community and determine how the school may help in meeting these needs.

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[2] An introduction to art education. New York, D. Appleton & Co., 1929, p. 2.

Develop effective methods of teaching and classroom procedure (general and specific).
Diagnose questionable conditions and suggest remedial measures.
Provide for improvement of teachers in service.
Raise efficiency of instruction by talks and demonstration to teachers.
Hold teachers' conferences.
Criticize and unify results of instruction.
Develop standards of attainment.
Make school and classroom visits (observation and suggestions for improvement, demonstration lessons, etc.).
Correlate art work with other work of the school. (Effective interrelation of work whenever possible.)
Prepare and use special examinations or tests to measure various phases of art training and results of instruction.
Devise methods for grading and scoring work.
Supervise the keeping of departmental records and making of school reports.
Recommend books, magazines, and other art aids, illustrative and supplementary reading material (library facilities, collateral reading, and study).
Secure supplies, materials, and equipment (requisition, direct ordering, purchasing, and distributing of supplies).
Direct the handling and care of materials and equipment.
Organize tours to museum, art gallery, industrial and commercial organizations, natural beauty spots, etc.
Cooperate with local museum or art school, public library, community clubs, stores, etc.
Secure lectures by painters, sculptors, architects, craftsmen, and industrial men on needs and demands of art (illustrated lectures and motion pictures when possible).
Attend convention on art education (Eastern, Western, Pacific, Southern Arts Association, State and local associations, etc.).
Present new ideas from conventions, late books, addresses, etc. (Keep up to date.)
Hold annual exhibitions of school work.
Select and organize exhibit for Art Association Convention or for other special purpose.
Community exhibits and exhibition of work loaned from organizations outside the school (community cooperation).
Plans for Parents' Day Program and other special occasions.
Provide for publicity of the work of the art department (newspaper items, booklets, posters, etc.).
Cultivate public speaking (talks and lectures at women's clubs, community affairs, teachers' meetings, and various public gatherings).
Participate in educational research and make contributions to professional literature.[3]

At the last meeting of the Federated Council on Art Education, held in Washington, D. C., May 12 and 13, 1930, the following resolution which typifies the present point of view pertaining to art teaching in high schools was accepted:

[3] Whitford. An introduction to art education, pp. 178–79.

RESOLUTION ON ART TEACHING IN HIGH SCHOOL

1. In meeting the requirements of an art teacher in high schools, there should be personal qualifications as follows: Good health, attractive appearance, skill in oral expression, tactfulness, initiative, cooperation, and a definite interest in art education and the teaching profession.

2. There should be required a general culture and training as follows: Command of English, English literature, sociology, educational psychology, history of education, principles of education, curriculum construction, educational measurements, and practice teaching in the art field.

3. There should be required a technical and professional training in the art field and this training and personal achievement should include the (*a*) graphic (representative and creative) experience; (*b*) design; (*c*) handicrafts; (*d*) art appreciation.

4. The high-school art teacher stimulates himself, his pupils, and his associates by doing creative work in some field of the arts. It is well for the art teacher to cultivate some "art hobby."—C. Valentine Kirby, chairman; Bess Eleanor Foster; Otto Ege.

It is evident that the trend in demands for the teacher of art is along broad, cultural, and technical lines with a clear understanding of the problems of the general teaching profession.

ELEMENTARY ART EDUCATION

Undoubtedly more change has been effected between 1920 and 1930 in art for elementary schools than at any other level. This is to be expected, for marked progress has been made throughout the elementary curriculum. Advanced psychological and educational studies have contributed liberally to this field. It is here that much experimentation has enlightened teaching, especially in the realm of emotional expression.

In general, the present aims of art education are pedagogical, economic, and cultural. A modern course of study seeks to train through *mental ability* to create and reproduce from stimulated imagination; to observe facts of line, form, value, and color; to establish motor coordinations and controls; *economically* to aid in the promotion of improved taste in modern manufacture and merchandising; and *culturally* to develop judgment and taste in the discrimination and selection of art and artistic products for personal improvement and pleasure and for community betterment.

In elementary stages the pedagogical aim predominates for the small child is unable to comprehend the other two. As the work advances the development of better taste and an understanding of the esthetic qualities of art becomes a part of the program. Miss Mathias advances this final thought:

For success of our elementary art courses we must have genuine respect for the art quality of every activity and equal respect for the children and their activities. We must challenge every material we give the children to work with and every skill we try to develop; the attitudes we hope to establish; the knowledges we attempt to impart. The challenge is this: Does it have a present value to the child and does it lead to anything worth while?[4]

MAJOR ART FUNCTIONS

Five functions of art instruction are offered by Professor Nyquist, of Carnegie Institute of Technology, based upon current objectives. They are:

(1) *Communication*—the usage of pictorial and plastic art as means of informational record and imaginative expression; (2) *observation*—perceptual learning through directed attention to forms, lines, areas, tones, colors, and their combinations and associations; (3) *construction*—development of the capacity for visualization, planning, and objectification of two and three dimensional art problems; (4) *selection*—specific recognitions, comparisons, and judgments of art qualities in commodities; and (5) *appreciation*—currently so called; that is, esthetic contemplation through guided attention to nature and graphic and plastic art for purposes of enjoyment.[5]

MAJOR ART EXPERIENCES

These five functions achieve their results through the aid of what Prof. W. G. Whitford, in The School Review, May, 1924, calls major "art experiences," and are "*drawing*, the graphic experience; *design*, the ornamental experience; *construction*, the motor constructive experience; and *appreciation*, the mental experience."[6] Professor Nyquist summarizes them as follows:

These art experiences contain the major elements of subject matter and pupil activities comprising the scope of elementary art education. Drawing, with its graphic and pictorial phases, is the chief component of the linguistic side of art instruction and is largely directed toward realizing the communication and observation aims of elementary school art objectives. Design, embodying the experience of projective and decorative intention, is completed by the construction experience, consisting of structural planning and motor manipulation, all of which are instrumental in consummating the aim of constructing for esthetic purposes. Lastly, appreciation in both its evaluative and esthetic stages edeavors to attain the highest aim of art as beauty through educating selective judgment and sensitizing esthetic responses.

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[4] Margaret E. Mathias. Art in the elementary school. New York, Charles Scribner's Sons, 1929, p. 3.

[5] Frederick V. Nyquist. Art education in elementary schools. Baltimore, Md., Warwick & York (Inc., 1929, pp. 21–22).

[6] In his book Professor Whitford adds a fifth—Color the chromatic experience, p. 7.

TABLE 1.—*The major aims of elementary art education* [1]

A. GRAPHIC AND PLASTIC ART AS LANGUAGE

	Generalized production	Generalized consumption
1. *Communication*—"writing" knowledge of	*Drawings:* diagrams, analytical drawings, informational drawings, instrumental drawings, etc. *Designs:* costume designs, interior designs, exterior designs, etc. *Colors.* *Plastic forms.*	
2. *Observation*—"reading" knowledge of		*Visual facts* expressed graphically, pictorially, chromatically, plastically, etc. *Natural phenomena* expressed chromatically, spacially, etc.

B. GRAPHIC AND PLASTIC ART AS BEAUTY

	Generalized production	Generalized consumption
3. *Construction* of Beauty	Personal *Environment,* Domestic *Environment,* Social *Environment,* Vocational *Environment,* Religious *Environment.*	
4. *Selection* of Beauty		Personal *Commodities,* Domestic *Commodities,* Vocational *Commodities,* Social *Commodities.*
5. *Appreciation* of Beauty		*Fine art:* architecture, painting, sculpture *Related art:* allied arts, industrial arts. *Nature:* landscape, marine, flora, fauna, etc.

[1] Fredrik Vickström Nyquist, A. M., Art education in elementary schools. Baltimore, Md., Warwick & York (Inc.), 1929, p. 53.

CORRELATION OF ART

While marked progress in the promotion of art has been made since 1920, it is significant that the last two years have fastened it securely to the general program of education. This may be at-

tributed, among other reasons, to the public declaration of principles as defined by the National Education Association: "Health, command of fundamental processes, worthy home membership, vocation, worthy use of leisure, civic education, and ethical character"; and also, to the contribution made by art in the adequate and successful application of these cardinal principles as educators, in their critical searching, have sought to justify the mass of subject matter contained in our general curricula over the country.

Art has correlated everywhere; the school dramatics require costuming, stage properties, back drops, posters, and lighting; projects devised by other teachers call at once for suggestion and practical help from the art supervisor; school and community functions and "drives" look to the art department for publicity. Education in self-expression recognizes drawing as a most important element in the training; vocational outlets, extracurricula activities and the use of leisure time, interest in home and civic improvement, and a study of the development of industry all resort sooner or later to art activity and interpretation. Thus a significant place for art has been made in modern education, especially in its broader sense as the child advances in the grades. As an indication of the general acceptance of correlation, mention might be made of a new series of books following this trend— the "Correlated Art Edition" of "Practical Drawing" [7] which seeks to tie up the numerous school and community activities.

ART IN THE JUNIOR HIGH SCHOOL

The present six-three-three plan of school organization, or the elementary, junior high, and senior high school divisions, permit of special emphasis in certain directions in the art education work. As has been stated, the pedagogical aim is all important in the elementary grades. It is here that creative expression wins its strongest support, and in these years mental training predominates; technic, unlike those earlier efforts in attempting to teach drawing, is not stressed.

However, in the junior high years the aims may become more narrowly confined to modes of training calculated to arrive at more tangible results both in correlated activities and in individual capacities and talents. This has been so far recognized that textbooks written by Pedro J. Lemos, of Leland Stanford University, and Bess Eleanor Foster, supervisor of art for the city of Minneapolis, have been designed to offer "a well-balanced course covering the field above the sixth grade based on the major objectives of education, command of fundamental processes, health, vocation, worthy home

[7] Practical Drawing Company, Dallas and Chicago, 1930.

membership, civic education, worthy use of leisure, and ethical character."[8]

The city of Baltimore, under the direction of Leon L. Winslow, has issued its art courses in three separate volumes, one for each group of grades. In the introduction for the junior high school course five definite aims are mentioned:

> (1) The arousing and preserving of interest in art through the cultivation of appreciation; (2) the enlarging and enriching of esthetic experience through exercise of the imagination and of the creative impulse in design; (3) the furnishing of educational guidance and vocational information, distinguishing between *appreciation* which applies to all pupils, and *creation*, which applies to few pupils; (4) the discovering of talent in gifted pupils; and (5) the furnishing of vocational training for talented pupils.

The growth of junior high schools has opened the way for many additional art teachers in the public-school system and, in many instances, no doubt, has caused far more careful studies of courses and procedure than have ever been made before. The fact that art seems to have entered the field of junior high education as an essential part of its curriculum, moreover, has stimulated art activity both below and above that level. Cumberland, Md., for example, has practically no art work in the grades, but considers it essential in its junior high program and seeks to advance it to the senior level. Its introduction in the grades as a fully recognized subject of educational value is probably a matter of a short time only. In small cities and towns somewhat isolated from the larger centers a longer period is needed for educational advancement, but the fact is significant that when junior high courses are introduced into any community a place for art is unhesitatingly accorded it.

Work in junior high courses varies from talks on appreciation to shopwork and the application of color and design to form in various materials. This may involve metal, leather, wood, paper, textile fabrics, and clay, both form and surface decoration being considered in the final problem. In correlated activities the materials likewise play a prominent part, for a given project may be treated in its broadest aspect. The school pageant would be a typical example.

ART IN THE SENIOR HIGH SCHOOL

In general, the 10-year period from 1920 to 1930 has seen much less development in the senior group of high-school years than in those below. In outstanding cases progress has been marked, but only where a broad program under a recognized administrative art leader, as in Buffalo, N. Y.,[9] has been supported by the superin-

[8] Pedro J. Lemos and Bess Eleanor Foster. Correlated art. Chicago, Abbot Educational Co., published by Practical Drawing Co., 1927.

[9] Harry W. Jacobs, art director.

tendent, high-school principals, and a corps of well-trained enthusiastic special art teachers. In such cases the last two years more especially have witnessed a close study of modern trends in art and of the vocational outlet, particularly in the field of commercial design. Increased enrollments in professional art schools, as well as an added number of new schools, attest to this fact.

But an average line-up of the high schools of the country presents only one outstanding feature denoting any great change in policy or point of view. It will be noticed in the chart on page 3 that art appreciation enters into the art education map with gradually increasing space. This subject has received considerable attention in the senior high school. As the general public has become somewhat more art conscious and as our American leaders of merchandising and industry have awakened to a realization of the necessity of art in manufactured products, so the educator has recognized that the children of the schools are the future mass consumers of these same products, and there has entered his consciousness the thought that as future citizens their education should cover his all-important aspect of human progress. Consequently courses in art appreciation, or the understanding of the laws of order and the underlying elements of art, have gradually developed.

Art appreciation offered at once an opportunity for all. Educationally, below the advanced field of specialization, group participation in any activity is highly to be desired. Here was the grand opportunity in art. Both art teacher and educational head have been quick to recognize this and courses have sprung up from east to west and north to south in art appreciation.

These courses have affected each level of the school system, but naturally have a deeper and more permanent significance with the older groups of children, who at the adolescent stage are more susceptible to esthetic impressions. Boys and girls of this age are naturally conscious of their person, their dress, their physical activities, and their general environment. The home and the community become a new world in which they rediscover themselves as emerging inhabitants. Under these circumstances art historically and in current practice has much of vital importance to the pupil's outlook on life and in his living.

Recognizing the new trend and its value in daily application, Mr. Boudreau and Miss Cantrall, in their book on Art in Daily Activities, make the following statement:

> Emphasis should be placed upon the fact that this book merely prepares for the more thorough understanding and appreciation desired in the study of art in daily activities. Not until it is amplified with profuse local material will it come into its own. If its users discover beauty about them of which

they formerly were unaware, it will have served half its purpose. Should it, in addition, develop the undiminishing habit of continuously observing and enjoying beauty, the remaining half of its purpose will have been fulfilled.[10]

NEW COURSE IN NEW YORK CITY

Without doubt the most far-reaching step in a senior high-school program is that recently taken by New York City. A course in art appreciation is required of all high-school students for two periods, a week in the first and second years, or the equivalent in one year, if deemed advisable. The new course of study is a well-printed loose-leaf publication of 132 pages, 8½ by 11 inches, bound in an attractive brown and gold cloth cover. In the introduction Associate Supt. Harold G. Campbell makes the following statements:

> We are aware that there has been developing an art for all idea in the trend of modern educational thought that promises to have a powerful and enduring influence on the education of the youth of this country.
>
> Experiments during the last five years in several of the New York City high schools have shown conclusively that a course in art appreciation, in which "the center of interest moves from the intimate to the remote, from the personal to the impersonal, from the student himself to the world about him," is awakening a broader understanding of the meaning of art to the individual, to the home, to the community, and to the industrial world. This course, designed to give to all, and especially to those who have no marked technical ability, a chance to study creatively the art that is related to their immediate surroundings, is apparently meeting a genuine need. It is, moreover, provoking unusual interest in the development of art judgments on the part of the pupils and leading many to a deeper and more sincere study of art as it concerns their future vocations.
>
> In adopting this course the board of superintendents and the board of education are convinced that this move constitutes not only a new departure in secondary education, but also a most progressive step in meeting the interests of every New York boy and girl and in contributing to the future development of art in America.

The course, adopted for the year 1930–31, was worked up during the previous year under the general supervision of Forest Grant,[11] with Laura C. Ferris[12] in charge of a special syllabus committee to work it out. It marks a radical step in syllabus making and seeks to develop the following aim: "(1) To engender love of beauty; (2) to develop good taste; (3) to enrich life and train for leisure; (4) to gratify the desire to create; and (5) to encourage talent."

To carry out the work much illustrative material is required and students participate in class discussion; do voluntary research work by means of collecting, reading, visits to museums, attendance at art

[10] James C. Boudreau and Harriet M. Cantrall. Art in daily activities. New York, Mentzer Bush Co., 1929.

[11] Director of art for elementary and secondary education, New York City.

[12] Now head of the department of art, Washington Irving High School.

lectures and extra drawing; keep a portfolio of notes, sketches, and mounted illustrations; and create original designs in line, dark and light and color. The syllabus covers the following subjects: Community, home, school, office, theater, dress, color, printing and advertising art, graphic arts, architecture, painting, sculpture and art in industry. It devotes about 20 pages to suggestive methods under each subject and presents 17 articles on different activities which have been successful in the high schools. These articles are written by the several teachers involved. The syllabus also gives under Sources of Information the names and addresses of exhibitions and art galleries in New York and Brooklyn, circulating exhibits, magazines containing art reviews, art centers and organizations, art schools, lectures, picture dealers, slide makers, and art dealers. There are two and one-half pages of art terms listed without definition, suggestions for equipment with other school facilities, and a rather complete bibliography.

ENCOURAGEMENT OF THE TALENTED

While the present emphasis is along general lines of appreciation, undoubtedly such a course as this must stimulate latent and suppressed talent which will be fostered in advanced special classes. That the talented must not be neglected, the following resolution was passed at the fourth meeting of the Federated Council on Art Education held in Washington, May 19, 1930:

Be it resolved, That—

(1) Teachers of art in high schools should be producing artists and that their teaching program should be so adjusted as to enable them to continue their productive work for the inspiration of their pupils.

(2) The double objective of art education should be recognized throughout the public schools; namely, (*a*) general education for art appreciation for all pupils; (*b*) special training for the talented.

(3) The talented, to be effective, must have technical training which shall develop four activities:

(*a*) The ability, in common with all other pupils, to get the meaning out of printed statements; to think clearly and logically; to visualize sharply and vividly; to work persistently, with concentration, self-directed and unsupervised.

(*b*) The capacity for unprejudiced, first-hand observation of and experience with the living work as prerequisite to expression through any appropriate medium.

(*c*) The freedom to exercise the constructive imagination embodied in some form of original creative expression.

(*d*) The habit of achieving the highest possible excellence of workmanship appropriate to the grade in every work of the hand.

(4) The talented student, while participating to a reasonable extent in the activity program of the school, should be protected from exploitation, to the

end that he may have full opportunity for growth in personal expression and in the acquirement of the necessary techniques.

HENRY TURNER BAILEY,
Chairman, Director, the Cleveland School of Art, Cleveland, Ohio.
MISS SHIRLEY POORE,
Assistant Supervisor of Art, Long Beach, Calif.
JAMES C. BOUDREAU,
Director School of Fine and Applied Art, Pratt Institute, Brooklyn, N. Y.

There is still much to be done generally throughout the high-school field, but leaders are pointing the way and the background of understanding is becoming clearer as it is being enlarged.

In order that the writer might be substantiated in his own analysis of trends in art education, a letter was sent to a few educational leaders in art throughout the country asking for comments on the following topics, which are slightly recast for this writing: (1) The scope of art appreciation—broad or narrow? (2) Appreciation taught by lecture or performance, or both? (3) What is the trend in creative expression? (4) Is it on the increase? (5) Is more or less guidance accorded it? (6) Is emphasis on technical, graphic and practical arts increasing or diminishing? (7) Is work with the talented increasing? (8) Are outside influences affecting art education in your community favorably or otherwise?

The answers are quoted in part as follows:

(Amy Rachel Whittier, Head of Department of Teacher Training, Massachusetts School of Art, Boston)

ART APPRECIATION

Tendency: The tendency on the part of progressive art teachers is to enlarge the field and include both fine and applied art.

Practice: The major part of all organized courses throughout the State of Massachusetts and New England deals with painting almost exclusively.

Some of the graduates of our high schools come to art school with a slight acquaintance with architecture, sculpture, costume, furniture and textiles.

Causes: 1. Lack of time because of lack of understanding the need, on the part of school boards, superintendents, and principals. 2. Lack of adequate material. There are many good reproductions of paintings, much provided information about them and the artists, but almost nothing that helps along the lines of other arts.

I am not forgetting that each year adds a little (1) to the education of those who control and organize time and funds; (2) to the available reproductions and printed help; (3) to the courses offered for credit by the various colleges and universities, but as yet we are feeling only a hopeful increasing interest.

Method: Still largely lecture in upper classes; question and answer in lower classes. But there is an encouraging increase of learning through experience, viz.: (1) Visits to museums, exhibitions, factories, stores; (2) acquaintance with art through drawing from art products.

Creative expression is on the increase and it is receiving more intelligent guidance as teachers come to understand its purpose better. More teachers are

putting the emphasis upon the expression of the idea first and learning how to "stand by" ready to keep the pupil to a better technical execution when he needs that help—instead of placing the emphasis upon technical execution first. There seemed to be at first a tendency on the part of the teacher to accept what appeared to be slovenly work and to make no effort to help the pupil to better results, but with clearer vision of the meaning of creative expression this tendency is disappearing. Perhaps this sums it up. There is now a material desire on the part of both teacher and pupil to search for technical help as it is needed, not to have it imposed by the teacher.

INCREASE OR DECREASE IN EMPHASIS ON TECHNICAL, GRAPHIC, AND PRACTICAL ARTS

The distinction between the three is a bit hazy in my mind and even the terminology does not clarify the fog, but I am venturing an expression of opinion on the following interpretation:

On increase

Graphic—illustration. Representation of object. Expression of ideas by representation or design (using pencil, crayon, or brush).

Technical—mechanical and instrumental drawing. I think the character is changing slightly.

Practical expression in clay, wood, textiles, and metal.

SPECIAL WORK FOR THE TALENTED

There are an increasing number of Saturday and late-afternoon classes sponsored (1) by private institutions such as settlements, museums, and clubs; (2) by art teachers who give their time and invite the boys and girls who are interested; (3) by public-school systems (many of these classes are held during school hours for the benefit of talented children).

INFLUENCES AFFECTING ART IN MASSACHUSETTS

Industry—The attitude of its leaders. Exhibitions. Lectures—at department stores. Extension courses. New ideas and practices in modern education.

TENDENCIES RELATIVE TO THE TRAINING OF ART TEACHERS

Better understanding of the grade teachers' problems, work, and objectives.

With the "new education" this is essential, hence the courses required for art teachers in training are including those which will give this result.

(Elmer A. Stephan, Director of Art, Pittsburgh Public Schools, Pittsburgh, Pa.)

In my new course of study for the Pittsburgh public schools, I have listed a heading called "Every Day Art." Under this caption we are including appreciation from a very wide and inclusive standpoint. Such items as arrangement of schoolroom furniture; arrangement of bulletin board; waste paper, and chalk marks; the beauty of the school grounds; the back yard; the community signboard are all included as studies in art appreciation. In addition, we are using during each year of the first six definite picture study subjects,

which include seven paintings outside of Pittsburgh, one painting from our own Carnegie Institute collection, and one piece of architecture per year. I would conclude from our own work that art appreciation was becoming a larger field of opportunity and more inclusive in its scope.

Our method is necessarily both lecture in the appreciation of fine art, and performance in the applied arts. A demonstration on the part of the child is always our aim. We encourage him, therefore, to carry on the demonstration outside of school, especially in the home, believing we have an entire family to educate, rather than just the child.

More stress is laid on creative expression from day to day. We have discarded entirely in the first two grades definite training in construction and illustration, believing that the adult procedure should not be forced upon the child until he asks for help. Creative expression is guided, however, through various principles of design so that the child gains a knowledge of underlying facts without reproducing the adult's models.

The talented child is cared for through special classes in certain buildings. Having completed his day's work he may be transferred to the art room, or he may spend his study and activity periods with the art teacher. In addition, one or two of the most talented boys and girls from each building are sent to the Carnegie Institute each Saturday morning for additional instruction provided for by the institute. About 250 students from fourth, fifth, and sixth grades make up the enrollment of this class. Then again, special talented students from the senior high schools are sent each Saturday morning to the Carnegie Institute of Technology where they may elect to take drawing, modeling, or design. In this way about 400 students who are especially talented are given additional instruction gratis.

Perhaps the greatest factor influencing art education in Pittsburgh is the work of the Carnegie Institute. On one Sunday alone, 12,000 people attended the International Exhibition, and an additional 600 a lecture on the exhibition. Moreover, the Carnegie Institute makes it possible for us to have all junior high-school students attend three lectures a year, one on architecture, one on sculpture, and one on painting, at the institute. The institute provides the lecturer, the board of education provides the car fare.

(May Gearhart, Supervisor of Art, Elementary and Junior High Schools, Los Angeles, Calif.)

In my department we feel very decidedly that art appreciation courses should deal with the need and the evidence of art anywhere it exists. The old lecture type of education is not nearly so effective as the present procedure which encourages student contribution such as the collecting of materials, reports on visits to museums, art galleries, and modern shops, reports on current commercial art and new architecture, analysis of wall pictures and illustrated books, and experiments with various mediums. Through group discussion the class generates standards which have a permanency not characteristic of esthetic culture handed to them already arranged by the teacher or lecturer. Full group participation is essential.

Belief in the value of creative expression has grown to such an extent that in elementary schools we are achieving results of a vigorous and sincere quality quite beyond anything attained in the formal teacher-directed courses of the past. Junior high schools are continuing along this avenue. The high schools

are inclined to be conservative but we observe an increasing tendency to offer a more liberal type of performance in art. Our State university and advanced art schools are giving a consideration to present-day tendencies in art and education that is most encouraging.

More and more classes in public schools and private art schools in California are being organized to meet the needs of the talented child. If he acquires a formal technique and becomes stylized or adopts the conventions of his instructors, the results are not satisfactory. If he is exposed to an esthetic atmosphere, and an art environment and if possibilities are offered for self-development and independent growth, a priceless gift is saved for him.

When creative art is the subject for a parent-teacher conference there is no difficulty in arousing a sympathetic and intelligent interest.

On our coast there is a very definite and growing interest in art and this interest is evidenced by the following: Activities of city planning commissions, additions to art galleries and museums, the opening to the public of the Huntington Galleries, improvement in civic buildings, opening up of highways through scenic areas, participation in community plays, pageants and rose tournaments, improvement in architecture of commercial buildings and homes, the importance of landscape gardening, and the notice given to beautiful flower gardens and flower shows.

(Esther Wuest, Supervisor of Art, Portland, Oreg.)

Among the recent trends in art education the effort to awaken the need for art among all classes of people, or the relation of art to life, seems one of the most vital. As to the future of this movement it will doubtless result in more people doing their own thinking as to art products and a greater development of appreciation.

The tendency seems to be to promote all forms of art for practical use as well as for esthetic pleasure. I believe the modern conception is very broad.

Method would depend largely upon the group and the time allotment. In daily sessions the actual work is essential. In large groups the lecture method with criticisms on problems brought to class.

The trend in creative expression is toward the development of individual ideas.

Progress is the result of creative thinking, not of imitation.

I believe that all forms of creative expression are on the increase.

The amount of technical guidance is dependent upon the subject and the individual student. The most important factor in the development of creative expression is to make it possible for the expression of ideas by creating an environment conducive for expression.

One of the most progressive steps in the development of special talent was the summer session of creative art expression, sponsored by the Portland (Oreg.) School Art League. The session continued for 6 weeks, 5 days per week. The pupils were selected from grades 6, 7, and 8 of the elementary schools.

The school was organized to allow each student to express freely his own individual ideas in whatever medium he chose, including representation and construction problems.

The widespread interest of our various civic organizations has contributed to promoting art in our schools. Excellent poster contests have given us State and national recognition.

Architectural contests have been sponsored by our local newspapers.

SUMMARY OF AIMS IN ART EDUCATION

It is apparent that not only has there developed a marked trend in art education along lines of general art appreciation for every boy and girl, with a slight impetus in the direction of more effective consideration for the talented, but there is also a tendency to advance along lines of "newer educational" procedure with basic educational objectives. The subject has surely won a secure footing for further development with support from administrators increasing steadily.

Mr. Kirby, State director of art in Pennsylvania, clearly sums up the present situation in the Virginia Teacher, for July, 1929,[13] as follows:

> Art education is no longer to be regarded as a special subject, a pigeonhole in the educational desk, a mere patch on the educational quilt, but rather a well-thought-out design woven into the educational fabric, enriching every phase of the school, home, and community life. Through its purposeful and cooperative aims art commands the attention and respect of the superintendent and other school authorities, who to a large extent control its destiny. The aims may be described as follows:
>
> 1. To bring into the lives of all the boys and girls everywhere the knowledge of beauty and the joy of expressing it.
> 2. To develop skills and to discover special inclinations and gifts into various fields requiring designers, decorators and professional artists.
> 3. To train specialists in art education to meet the great demands for teachers and supervisors of art and intelligent executives and sales people in departments of commerce and industry.
> 4. To cooperate with all agencies in furthering general school studies, health education, the conservation of resources, fire and accident prevention, human welfare, and a finer citizenship.
> 5. To create a desire for more attractive school buildings and grounds, the finer things in the home, the school, the shop and in life.

OTHER FACTORS AFFECTING ART EDUCATION

This report would be far too incomplete if it failed to mention briefly the work of other agencies in the present field of art education, such as private schools, museums, etc.

Private schools in the United States quite naturally take the lead in trying newer ways of conducting their work. They are freer to change at will. Practice schools of our teachers colleges are privileged in large measure to do likewise. During the past decade the Progressive Education Association has done much to promote creative expression in all the arts and to show the way in art advancement for the more unwieldy public schools. Individual efforts likewise have been blazing new trails, an outstanding example being that of Charles Woodbury, the well-known painter, and Mrs.

[13] Published at the State Teachers College, Harrisonburg, Va.

Elizabeth Perkins in the Woodbury schools. Their work, based upon their book, The Art of Seeing—Mental Training Through Drawing,[14] is developing through the summer school at Ogunquit, Me., opened in 1924, and is the continuation of Mr. Woodbury's summer classes that closed at the time of the war. The summer school started with a small group of 20, and in the last two years has reached its limit of 100 students.

The Woodbury Training School in Applied Observation, which was incorporated in 1927 to meet the need for teachers and focus the many applications of the teaching, started with 40 part and full time pupils. It had 90 students enrolled in its third year, 50 per cent of whom were teachers.

The object of the teaching is mental and emotional training through line and color. These records of clear sight and thought form a basis for general education as well as for training in the fine and applied arts.

One of the important means used for drawing is the special motion-picture film, made by Eastman Teaching Films (Inc.). In setting students to draw from motion pictures the start is made at the fundamental impulse to be interested in things happening—moving. Figures and animals must be seen as wholes; it becomes impossible to copy a part. The line can not be imitative as the student is forced by the conditions to generalize in order to get motion. The student must take the large and comprehensive approach which leads to further observation and study direct.

Drawing from motion pictures does the following things: (1) Insures interest and personal choice; (2) quickens observation; (3) increases and orders memory; (4) supplies information needed to put over a purpose; (5) supplies original material for design and illustration; (6) increases the value of visual education departments throughout the country; (7) increases appreciation of art through self expression; and (8) by its obvious connection with general education helps to make drawing a major subject in schools and colleges.

While this chapter deals more especially with the elementary and secondary fields of art education mention of the unique policy current at Brown University, Rhode Island, is justified as it strikes so directly at the heart of progressive ideas in art. The foregoing institution believes that all students would be better off with some art contacts, for, to a very large extent, community as well as national leaders are the products of our colleges and universities.

Therefore, courses that will help the future leading citizen in his position of influence should be offered and should be based upon cur-

[14] The Art of Seeing—Mental Training Through Drawing. New York, Charles Scribner's Sons, 1925.

rent trends as affected by past expression. To carry this idea into effect Brown University has a small but well-lighted general practice studio where individual creative work is done, a practicing artist who is also a teacher engaged to head the department with an assistant professor's title, and a special studio built for him, with the stipulation that he shall continue his creative work in order that a very real artistic atmosphere may be maintained. Prof. Will S. Taylor, mural and landscape painter, within the last five years has built up a growing and popular department in real art appreciation. He is at present engaged upon a series of large murals for the Natural History Museum in New York. Both men and women are in his courses. He starts his students with lectures on current art in many fields, supplemented by experimental studio practice. He works from the present to the past in contrast to customary practice and thus builds an immediate and growing appreciative interest in the present environment of his students, which leads psychologically and naturally to the more remote historic periods that have their bearing on things to-day.

If talent is discovered, opportunities are given for majoring in art, and arrangements for advanced technical work are happily made with the Rhode Island School of Design, where its specially selected galleries of all forms of fine and practical arts expression function regularly in Professor Taylor's general courses.

Such a policy of art education forms a very potent capping to the more elementary steps developed below the college level and suggests a most vital method of meeting that almost universal and pathetic ignorance of art expression, with its social and spiritual meaning, in the minds of our boards of education and our educational administrators.

MUSEUMS

An increasing interest in the country's art museums has led to serious and successful efforts in educational work conducted by these organizations, usually in cooperation with city schools, higher institutions, and organized adult groups. The museums in New York, Boston, Worcester, Cleveland, Toledo, Detroit, and the far west have employed well-trained educational workers, and through these agencies the work of appreciation in the schools is being most effectively supplemented.

The following, quoted from a pamphlet on the educational work of the Cleveland Museum in 1927, indicates the character and purposes of this work.

> All of the activities discussed in this paper have been intended to extend the acquaintance and make more intimate the relation between the public and the works of art afforded by the museum. As knowledge of the museum has

grown among the people of the community, it has led to further services. School officers meet at the museum for conferences; teachers meet for demonstrations of teaching art appreciation both through the collections and through drawings; clubs seek consultation in preparing programs for the season's study; parents seek advice regarding the art education of their children; and social workers come for consultation in many connections. As such service usually is in response to an immediate need, its value is direct and important. But the greatest educational factor of the museum must always be the enjoyment of the works of art; and it is the chief service of the department of educational work to develop this enjoyment among the people.

TEACHING HELPS

With the increased interest in art education teachers have sought material to aid them in class work as illustrative material, design sources, and matter for appreciation courses from every available place. Magazines, advertising literature, house organs, posters, and many other current pieces of commercial production have been and are being used.

In recognition of this need the school supply houses have generously prepared various helps which they have distributed freely to teachers. Everyday Art, a little magazine, published in color by the American Crayon Co., is sent monthly to thousands of teachers, including some abroad. The Drawing Teacher, a "little folder of teaching projects for the art teacher," is mailed each month to some 30,000 addresses by Binney & Smith Co. A valuable little booklet on pencil sketching has been published and freely distributed by the Venus Pencil Co. Another at a small cost was published by the Dixon Crucible Co., also on the use of the pencil. While this is undoubtedly excellent advertising material the professional way in which they are prepared and the generous service which such help renders by these and other houses has a direct and beneficial influence in the promotion and development of art education.

SUMMER SCHOOLS

Art courses in connection with summer classes of our colleges and universities and summer art schools have continued with increasing registration to draw from the teachers during the vacation months. These schools, however, have had little or no influence in promoting new ideas in art education. They have rather sought to supplement the previous training of the teacher by added technical work, largely for purposes of enjoyment, or by courses in methods following traditional and current ideas. Three such summer art schools are the Berkshire Summer School of Art at Monterey, Mass., a delightful tent-house encampment in the heart of the Berkshires; the Boothbay School of Art at Boothbay Harbor, Me., and the summer school at

Chester Springs, Pa. Here some 400 art teachers gather for both inspiration and vacation during six weeks of the summer.

PRAGUE INTERNATIONAL ART CONGRESS (1928)

The international art congresses, mentioned earlier in this report, were gatherings of art teachers from all over the world to discuss for one week general topics of mutual interest. Following a reorganization meeting in 1925 at Paris, the next large congress was planned and held at Prague, Czechoslovakia, in the summer of 1928. Three official American delegates were appointed by Secretary Kellogg as follows: Royal B. Farnum, chairman, State director of art education and principal of the Massachusetts School of Art;[15] George J. Cox, head, department of fine arts, Teachers College, Columbia University; and C. Valentine Kirby, State director of art education for Pennsylvania.

An exhibit of school work from all parts of the United States was prepared, seven speakers were appointed, and the congress was opened with the astonishing number of approximately 1,000 American art educators in attendance, the largest delegation outside of Czechoslovakia. Some 27 countries were represented and two large exposition buildings were filled with exhibits of school work. The official languages were English, French, and German and all papers were translated for the benefit of each group.

President Masaryk visited the exhibition upon two occasions and seemed especially interested in some original drawings of our Oklahoma Indians.

At the closing meeting it was unanimously voted to accept the invitation from Vienna to hold the next congress in that city in 1932.[16]

FEDERATED COUNCIL ON ART EDUCATION

Reference has already been made to the Federated Council on Art Education, an organization composed of three representatives from the seven large art bodies in the United States: American Federation of Arts, American Institute of Architects, Association of Art Museum Directors, College Art Association, Eastern Arts Association, Pacific Arts Association, and Western Arts Association.

During its brief existence since 1925 the council has made four studies in the fields of elementary school art and college art, art museum educational work, and art terminology. Reports have been

[15] Now educational director, Rhode Island School of Design.

[16] Huger Elliott, director of education, Metropolitan Museum of Art, New York City, chairman of United States of America committee for Vienna.

issued on the first two and last subjects and a study is now under way in the high-school field.[17]

The work of the Federated Council on Art Education thus far has been supported by the Carnegie Corporation and membership fees of the member associations. There is need of permanent support for an organized clearing house of this type, for its very smallness, coupled with its representative character, makes it a practical working body that has exceptional opportunities for effective service in art education.

CARNEGIE CORPORATION

The continued activities of the Carnegie Corporation in the field of the arts has done much to stimulate educational work in art, at the college level more especially. Its fellowship grants have permitted much scholarly study, but in addition its gifts of especially selected art teaching material, consisting of books, prints, photographs, and a few textiles, with cabinets to contain them, have been of inestimable value in promoting greater efforts in art among many colleges. Quoting from the 1930 report of the president, Frederick P. Keppel:

> The present program of the corporation in the arts really began with the report upon The Place of the Arts in American Life, issued in 1924. Since that time, $2,300,000 has been voted, not a large sum in terms of the total income of the corporation, but relatively large in terms of the total appropriations devoted to new enterprises during the period. * * * The past year * * * has witnessed three important changes. The acceptance of Frederic A. Whiting, for 13 years director of the Cleveland Museum of Art, of the presidency of the American Federation of Arts gives to that organization the full-time service of a man of wide experience and great influence; the College Art Association, which, in its more limited field, is the outstanding American agency, is contemplating an administrative reorganization which should greatly increase its availability; and, finally, the election of Doctor Suzzallo brings to the service of the Carnegie Foundation one of the leading spirits of his generation in the broader aspects of art education.
>
> These changes, plus the larger share of the income of the corporation which will shortly be available, combine to make possible a period of larger activities in the arts for the future.

FINAL CONCLUSION

A brief glance over the past decade leaves a most optimistic feeling with regard to the future of art education in this country. The Nation is surely awakening. There is a growing enthusiasm in support of art in our public schools. Private schools are beginning to

[17] Report on elementary school art; report on art instruction in colleges and universities; report on terminology. Leon L. Winslow, secretary, Carrollton and Lafayette Aves., Baltimore; Md.

appreciate its fuller meaning and to promote it. The college field, with much encouraging support, has gained an increasing initiative in carrying it forward. Art schools are full to capacity, and our museums are rounding out the picture in their educational work.

At the same time general industry has found art an economic necessity, retail houses are conscious of its importance in merchandising, and through beautifully presented advertising the general public has received a silent but effective education in art.

Thus the stage is set for more powerful and effective work with greatly enriched educational returns in the next decade, even in the next two years.

CHAPTER IX

MUSIC EDUCATION

By Osbourne McConathy

Contents.—Music in the public schools—Teacher training—Music in colleges—Organizations of music teachers—Agencies for furthering music education—Music foundations—Radio in music education—Symphony concerts for children—The private music teacher—Conclusion.

The present chapter offers a general survey of music education in the United States during the past decade. No attempt is here made to go into statistical details or to give lengthy explanatory statements of the various topics presented for consideration. To do so would quickly exceed the allotted bounds. Rather, this study aims to give a bird's-eye view of the whole range of music education in this country during the past decade, by discussing briefly a number of the more important fields of this work and some of the more prominent agencies engaged in them. No attempt is made to summarize or to draw deductions from the situation as found. The chapter is more in the nature of a fact finding report than an advisory statement. The reader may draw his own conclusions from the statement of conditions as herein reported.

MUSIC IN THE PUBLIC SCHOOLS

The place of music in the curriculum of the public schools has been greatly strengthened during the last decade. The following resolution was passed by the conference of the Department of Superintendence, National Education Association, Dallas, Tex., March 4, 1927:

> We would record our full appreciation of the fine musical programs and art exhibits in connection with this convention. They are good evidence that we are rightly coming to regard music, art, and other similar subjects as fundamental in the education of American children. *We recommend that they be given everywhere equal consideration and support with other basic subjects.*

This resolution is both an evidence of the growing conviction of the basic importance of music as a subject for study in schools and an authoritative statement which will give a strong impetus to the solidifying of music in the school curriculum.

(A) ELEMENTARY SCHOOLS

There is a marked trend in the direction of socializing the study of music in the elementary schools, and making it increasingly a factor in the whole life of the school. It is felt that music has too long been largely an isolated subject, and that more advantage should be taken of its many rich possibilities for contributing to the other fields of activity and study. At the same time increasing emphasis is being given to differentiating music study to meet the various needs of pupils of different interests and talents. So we see, side by side, the broadening of the conception of music as a contribution to the whole school life with the more intensive specialization of instruction to meet individual needs.

Music teaching in the elementary schools may be considered under three headings: Singing, appreciation, and playing upon instruments.

In the singing lesson, while teachers are still eager to secure good sight reading, exaggerated emphasis on this activity is gradually subsiding. Indeed, in a number of communities the pendulum seems to have swung too far in the other direction, and teachers seem to fail to realize that without a background of a certain amount of technical skill the pupils are handicapped in learning songs expressive of their own advancing tastes and interests. On the whole, however, stress on the acquirement of reading skill and emphasis on learning beautiful songs for their æsthetic values and for their contribution to social experiences seem to be achieving a reasonable balance in the singing lesson.

Within the past 10 years the entire subject of music appreciation has come to be accepted practically everywhere as an integral and vital part of music education. The technic of teaching music appreciation has been completely changed within the decade. In the early years, appreciation lessons were little more than passive listening. Better pedagogical methods have been introduced, and now the keenest comparison, discrimination, judgment, and feeling of the student are called forth in hearing reproductions of great music. Teaching of the history of music has swung out of the rut of its chronology. Newer methods center upon the music itself rather than upon discussion as to what year a given evolution or development occurred. Beauty of tonal expression has come to be the *sine qua non* of all good music appreciation work. Information about music is no longer spread before the pupils by reading treatises and articles, biographies of composers, extraneous incidents, etc., but the newer procedure leads the children themselves to inquire, "What does the music say?" By these modern methods the students are led to true musical dis-

crimination and to the desire and ability to express their own feelings and opinions as to what is heard. The advent of radio has brought about a splendid flowering of the whole subject of music appreciation. Teachers have learned that concerts over the air without preparation in advance are largely lost and leave no permanent residuum. The fleeting impression as it passes on the wings of air can only be caught and retained if the appreciative mind knows in advance, and therefore recognizes as it passes, the outpouring of beautiful music which now for the first time is made available to millions who never before knew that such music existed. Without the foundation of music appreciation, education through radio would probably never have gained its present foothold. Another interesting development is the growing tendency to coordinate the appreciation and singing lessons. More and more, teachers are realizing that all music study should contribute to the development of a finer sensitiveness to beautiful music.

Instrumental instruction to-day includes a number of activities, such as the toy orchestra in the kindergarten and primary grades, classes in piano, and instruction in playing instruments of the orchestra and band. A few years ago the rhythm band was considered largely a means for developing rhythmic consciousness, but of late there is a tendency to see in the toy orchestra the first step in leading the children to an interest in instrumental performance. Piano classes were found in only a few school systems 10 years ago, but now hundreds of cities are offering instruction to many thousands of children in the elementary schools. At first nearly all of these cities followed the plan of charging the children small fees for their lessons, but gradually there seems to be a tendency toward making this work a part of the regular curriculum, financed by the school. Many cities are trying plans of testing children to try to ascertain aptitudes, and assigning to the piano and other instrumental classes those who seem most likely to succeed in their efforts to learn to play. The classes in playing instruments of the orchestra and band have led to the formation of numerous ensembles in the elementary schools. Naturally this activity blossoms more fully in the high schools, but the start made in the grades is an important factor in the splendid instrumental work now common in high schools in every part of the country.

Another phase of music study which recently is assuming important proportions is the development of rhythmic consciousness and expression through physical activity. One of the prominent exponents of this idea is Jacques Dalcroze, of Geneva, Switzerland, whose system of eurhythmics has been introduced into a number of colleges and normal schools. A few elementary schools, too, are experimenting with this system, but a far larger number are intro-

ducing less exacting rhythmic activities of various kinds which seem more practicable under our American school conditions. Often these activities are under the direction of the music teacher, but there is a growing tendency to effect a cooperation of the music and physical education departments. The underlying principle, so far as music is concerned, is that rhythm is fundamentally a physical manifestation (and pitch an aural manifestation) and therefore comes most naturally through the rhythmic experience of dances, games, and free interpretative action.

(B) JUNIOR HIGH SCHOOLS

Early in the decade just ending junior high school music was at a rather low ebb. The music supervisors of the country were somewhat slower than were the directors of most of the other subjects to adapt themselves to the new organization. Consequently school administrators relegated to a somewhat inferior place the subject which almost ideally met their reasons for adopting the junior high school plan. Few music teachers were trained to meet the specific needs which the new plan presented. A new demand confronted teacher-training institutions, and several years passed before they were able to supply teachers well trained to meet the particular needs of the junior high school. As the decade progressed, conditions in junior high school music steadily improved, though there still remains considerable uncertainty over several administrative problems. What courses in music should be offered? Which should be elective and which required? Which should be regularly scheduled and which offered as extracurricular opportunities? The general trend seems in the following direction:

General music.—Required in grades 7 and 8, minimum of 90 minutes per week in not fewer than two periods; elective (or required) in grade 9, minimum of 45 minutes per week in one or more periods.

Glee clubs, choruses.—Elective (or extracurricular), minimum of 45 minutes per week in one or more periods.

Class instruction in instrumental music.—Elective, minimum of 45 minutes per week in one or more periods.

Orchestra.—Elective, minimum of 90 minutes per week.

Band.—Elective, minimum of 90 minutes per week.

Elementary music theory.—Elective in grade 9; minimum of 90 minutes per week in not fewer than two periods.

Outside study of music.—Credited in grade 9.[1]

There is a tendency towards making general music in the seventh year a required study, in classes conducted largely as were those of the sixth year. In the eighth year, while still requiring general

[1] From a tabulation in Music in the Junior High School, by Beattie, McConathy, and Morgan; Silver, Burdett & Co., 1930.

music, classes are usually combined into larger choruses. The ninth year seems more and more tending toward placing music on a purely elective basis, though the assembly period strongly emphasizes singing.

The junior high school has passed the experimental stage, and music, along with the other subjects, is finding its recognized place in the new curricular organization.

(C) SENIOR HIGH SCHOOLS

The most conspicuous development in high-school music during the past decade has been the work of the orchestras and bands. In enrollment and in quality of performance the growth has been amazing. This has been due largely to the activities of the instrumental committee of the Music Supervisors' National Conference aided by the National Bureau for the Advancement of Music. All over the country, in cities and towns and villages, in large schools and small, the instrumental groups have achieved notable success in performing good music well. In many places this activity has been on an extracurricular basis, but there has been steady progress toward placing it among subjects regularly scheduled during school hours and carrying school credit. A great stimulus has been given the instrumental movement by the regional and national band and orchestral contests, where instrumental ensembles of symphonic proportions have played with professional finish.

Two conspicuous outgrowths of this movement have been: (1) The National High School Orchestra; (2) the National Summer Camp. Both of these subjects are discussed under the heading, Committee on Instrumental Affairs of the Music Supervisors' National Conference. (See p. 12.)

So much emphasis was given to the instrumental work in high schools throughout the country that for a time the choral field seemed overshadowed. But the situation has awakened a spirit of emulation in the singers, until there is now a most interesting renaissance of choral interest. The National High School Chorus has assembled twice at the meetings of the Music Supervisors' National Conference. They sang for the superintendents' section of the National Education Association in February, 1931. The singing of these young choristers has been delightful in every respect, and has made clear that in all parts of the country there are plenty of high-school boys and girls who merely need adequate guidance to enjoy the study of fine choral works. This is shown still further by a number of admirable choral organizations which have been developed in high schools in widely separate parts of the country, choruses which perform the very best music with excellent technical finish and with

charming effect. Unquestionably we are on the eve of a widespread awakening to the possibilities of fine choral singing in our high schools.

The practice of giving operettas has grown tremendously during recent years. Many schools present performances of well-written works, in which nearly all the school departments cooperate. Unfortunately the field is flooded with a vast amount of inferior operettas which are performed because they are easily produced or because the subjects are trashily attractive. It seems unfortunate that schools which offer splendid courses in music appreciation will then turn right-about-face in the quality of music selected for public operetta performances. On the whole, however, in choral and instrumental ensembles, there is a decided tendency toward a better type of music in our schools.

One other tendency in high-school music should be noted, and that is toward placing all music activities on an elective, credited basis, including applied music studied with outside teachers. Choruses, orchestras, and bands, as well as classes in appreciation and theoretical music, are now offered widely throughout the country, and increasingly as a regular part of the high-school course of study.

Despite these evidences of growth there has been a situation affecting the integration of high school and college music which is still unsettled. It is well known that the college directly influences the courses of study offered in the high school. The endowed colleges, particularly those in the Eastern States, have not been liberal toward entrance credits in music, and therefore have seriously retarded the recognition of high-school music on a plane with the other subjects, as is advocated in the Dallas resolution of the Department of Superintendence quoted earlier in this survey. The integration of high school and college music may well be a subject of study for the combined college and high school music departments during the next decade. (See Music in Colleges, p. 329.)

(D) PRIVATE AND PAROCHIAL SCHOOLS

The past decade has witnessed a marked increase in attention to music in private and parochial schools. In private schools this attitude usually focuses attention on the appreciative and cultural aspects of the subject, with especial emphasis on acquaintance with fine folk music and music of the classic masters.

In parochial schools considerable attention is being given to the study of Gregorian chant. These schools are attempting to put into more widespread effect the Moto Proprio of Pope Pius X. The demonstrated simplicity of plain chant has shown that it can be taught effectively in much the same way as other school subjects.

Consequently teachers are introducing its study into the elementary grades because they realize that familiarity with the chant in early childhood is the surest way to restore it to its place in the Church service.

TEACHER TRAINING

State certification of school music teachers and supervisors now requires formal preparation in recognized institutions along definitely specified lines. While there is still wide variation in different States, there seems to be a gradual approach toward agreement as to the proportion of required academic education, and music studies.

Most of our larger cities now insist that music teachers shall hold the bachelor's degree and the same demand is becoming customary in smaller and more remote localities. The master's degree is now expected of most musicians occupying important executive positions. These demands created many perplexing problems for older supervisors during the early years of the past decade, but adjustments have now largely been effected.

In line with these State requirements the institutions which offer training for music teachers and supervisors have modified their courses of study to meet the new situation. The research council of the Music Supervisor's National Conference, in 1929, issued as Bulletin No. 11, a survey of the whole subject of State certification of teachers and supervisors of public-school music. A report by the same body, issued in 1921, on courses for the training of supervisors of music, will soon need revision in the light of recent practices. At its meeting in St. Louis, at the close of the present year (1930), the National Association of Schools of Music will discuss a report of its curriculum commission on a 4-year course of study with public-school music as a major. Courses in public-school music leading to certification and degree are now offered by a large majority of colleges and schools and conservatories of music throughout the country. (See Survey of College Entrance Credits and College Courses in Music, 1930, National Bureau for the Advancement of Music.)

MUSIC IN COLLEGES

(A) PRESENT CONDITIONS

A Survey of College Entrance Credits and College Courses in Music, prepared by the research council of the Music Supervisors' National Conference in cooperation with the National Bureau for the Advancement of Music, was published by the National Bureau [2]

[2] 45 West Forty-fifth Street, New York City.

in 1930. The following quotation is from the Foreword of that volume:

> The research council and the bureau see in the investigation and its published report a means of aiding high-school pupils interested in music and desirous of receiving credit for it at college entrance and, in many cases, continuing their study of the subject in college. Music supervisors, teachers, and parents have been in urgent need of some authoritative assistance in guiding these students. But that is only part of the objective of the survey, important as it may be. Of almost equal value is it to present the situation to the colleges themselves. Many are planning to grant more recognition to music, but are hesitant as to how far they should go in the absence of sufficient accurate information as to what is being done elsewhere, and the success of those who have taken advanced action. Others have considerably increased their entrance credits obtainable in music, or their courses offered in music, and it is meet and proper that the world should know. Still others remain neglectful, and for these, too, light on the situation may well be of service as a stimulus to greater progress.

The findings in the foregoing survey are far too voluminous and complex to be even summarized here. To get a clear picture of the subject one must consult the volume itself. Consequently the following tables can merely indicate the general scope of the survey:

Colleges accepting music for entrance

Number of colleges tabulated	594
Number accepting entrance credit in music	452
Colleges establishing this practice during the past decade	166

There are some notable exceptions to the general rule of accepting entrance credit in music, especially among the larger eastern institutions. While there is wide variation in the amount of music which may be offered for entrance, in the majority of institutions accepting these credits a student may present at least 2 of his 15 entrance credits in music.

College courses in music

Number of colleges tabulated	594
Number offering instruction in music	479
Number accepting music credits toward degrees	469
Number offering courses in school-music supervision	208

Wide variation is shown in the amount of music which a student may elect, and also the manner in which his music studies may apply toward degrees. The majority of institutions which allow music credits toward a degree limit the amount to between 10 per cent and 30 per cent of credits required.

(B) MUSIC FOR THE GENERAL STUDENT BODY

While the foregoing tabulation of entrance credits in music and music credits toward degrees shows that the musical student who surveys the field with care may find opportunities to pursue his college studies with due consideration to his musical interests, there

is nevertheless a wide gap in our music system which the colleges still leave open. This gap is found in the failure of colleges to provide adequate opportunities for the large number of students who found cultural pleasure in playing in high-school orchestras and bands. Few colleges assume direct supervision of their bands and orchestras, and still fewer offer credit for this form of applied music. The amount of time necessary to keep in practice on an instrument seriously handicaps the student who gives this time without credit. While some analogy may be drawn between this situation and that of the college athlete, there are too many points of difference for the two college activities to be classed together with respect to academic recognition. The Intercollegiate Musical Council, discussed below, is making splendid progress in meeting the situation with respect to the singer, but some way must be devised to help the instrumentalist. That as many excellent college bands and orchestras exist as may be found in various parts of the country is a tribute to the attractiveness of this form of music, to the inherent desire for such self-expression, and to the foundations laid in the high schools.

Another weakness in college music is found in the lack of drawing power of so many college courses in music appreciation. Surely this subject, properly presented and with a sympathetic attitude shown it by the other members of the college faculty, should be a rallying center of campus culture. That this is so seldom true points to a need for collegiate consideration and for removal of the obstacles which stand in the way of the proper functioning of such courses.

(c) INTERCOLLEGIATE MUSICAL COUNCIL[8]

The council's activities in 1920 consisted in organizing and managing an annual singing contest in New York City in which eight eastern colleges participated. In 1930 the council's activities covered the United States. In the winter of 1930–31 glee clubs from 131 colleges competed in State and regional singing contests. More than 100 other college glee clubs have applied for admission and are waiting to be organized into groups for contest purposes. These activities are all under the auspices and direction of the intercollegiate council.

In 1924 the council undertook to organize the preparatory school glee clubs along similar lines, and since that time there have been annual school glee club contests held in New York.

The influences of the movement have been important. A survey of undergraduate musical activities, undertaken soon after the war, brought out the following facts: (1) A very small fraction of the

[8] 119 West Fifty-seventh Street, New York City.

students, even in our leading universities, were being influenced in any appreciable way by good music; (2) most student musical talent found its expression through glee clubs, banjo clubs, and jazz ensembles; (3) most of this music making was of a deplorably poor quality, contributing nothing to the education or culture of those who took part. Under the stimulus of friendly competition provided by the contest movement, the revival of interest in singing among American students has been rapid and continuous, and the standards both of performance and programs have undergone a radical improvement. At the present time there are a considerable number of well-trained student choruses whose performances command the respect and enthusiastic support of a large public.

Ten years of development in this field have demonstrated the following facts: 1. It is just as possible to produce intelligent amateurs in music as it is in athletics. 2. Singing is an ideal medium of self expression for students. It appeals to all without regard to class, race, or color. 3. College men enjoy singing good music more than they do poor music, and under adequate leadership are capable of excellent performance. Summing up, the major trend in college singing during the past 10 years has been toward a decidedly higher appreciation of music than ever before in American college history. The old-fashioned type of mixed program, half vaudeville, half musical, has to a large degree given way to first-rate singing of first-class music. The result to American life is that several thousand young men each year are returning to their home communities trained in choral music by membership in glee clubs during college days. While the achievement thus far is encouraging, as a matter of fact less than one-third of the field has been covered. There is much pioneering and organizing still to be done.

ORGANIZATIONS OF MUSIC TEACHERS

(A) MUSIC SUPERVISORS' NATIONAL CONFERENCE

The Music Supervisors' National Conference, beginning with a gathering of less than 100 music teachers in Keokuk, Iowa, in 1907, has become the largest association of music teachers in the world, with more than 7,500 members. Formerly the conference met annually, usually in the Middle West, with gradually increasing membership. In the course of time other organizations of supervisors were formed on the eastern and western seaboards. In 1926 a national reorganization was effected. This consists of the national conference and six affiliated sectional conferences: California, eastern, north central, northwest, southern, and southwestern conferences. Begining in 1927, all the conferences meet biennially, the

National Conference alternating with the meetings of the sectional conferences. A Book of Proceedings is issued annually for all the conferences, containing reports of business transacted and papers, programs, and discussions. The conferences publish a magazine of considerable size and influence, and appoint committees for the study and furtherance of special phases of music education.

The business responsibilities of this large and complex organization reached a point where the load was too heavy for the group of officers to handle while carrying on the duties of their regular positions. A new constitution was therefore adopted in 1930, and is now in effect, which provides for a headquarters office and the employment of an executive secretary whose entire time is devoted to the business of the conference.[4]

Among the topics in school music which have come into special prominence during the past decade, and which have been dealt with in the conference through general discussion and committee action, the following may be mentioned: (1) Amateur spirit in music; (2) development of appreciation activity; (3) the beginning of radio instruction; (4) the development of instrumental music, later with special emphasis on class instruction and small ensemble; (5) vocal work in schools; (6) enrichment of the elementary music field through school choirs, school concerts, rhythm orchestras, piano and violin classes, etc., which is bringing the possibility of differentiation of talent into the level of the elementary school; (7) a great widening of acquaintance with music of a higher quality; (8) the general acceptance of the fine arts as a major activity in education; (9) the very much higher standards required of music teachers; (10) increased cooperation of school music with civic organizations and in community life; (11) integration of music in the academic life of the student (correlations).

NATIONAL RESEARCH COUNCIL OF MUSIC EDUCATION

No work done by the Music Supervisors' National Conference has been of greater importance than that accomplished by its National Research Council of Music Education. The council was established in 1918 as the Educational Council, but was reorganized and given its present name in 1923. It consists now of 15 members, who, divided into committees, study various current problems of music education. The whole council reviews all committee reports and submits them to the conference for action only after they have received the unanimous approval of the council. Reports so studied by the council and ratified by the conference are extremely influen-

[4] 64 East Jackson Boulevard, Chicago, Ill.

tial because they represent the convictions and become the platform for action of the public-school music teachers of the Nation.

The council reports are published in the Book of Proceedings of the conference, and are reprinted in the form of separate bulletins which are sold at a nominal cost. The list of bulletins published to date, which follows, may be said to indicate the main directions of thought of the public-school music teachers of the country, from the time the council was established.

1921. Courses for the training of supervisors of music; and a standard course of study for graded schools.
1922. A plan for granting high-school credits for applied music (specialized musical technic).
1923. A study of music instruction in the public schools of the United States.
1925. Music in the junior high schools.
1925. A standard course for the music training of the grade teacher.
1926. Music in the one-teacher rural school.
1927. A survey of tests and measurements in music education.
1928. College entrance credits, and college courses in music.[5]
1928. Standards of attainment in sight singing at the end of the sixth grade.
1929. State certification of teachers and supervisors of public-school music.
1929. High-school credit courses in music.
1930. The music competition festival.
1930. Newer practices and tendencies in music education.

The last-named report covers such topics as music in the platoon school, departmental organization, summer music schools for children, original composition, construction and use of instruments by children, string, wind and piano classes, Dalcroze eurhythmics the rhythm orchestra, children's concerts, and the radio in music education.

COMMITTEE ON INSTRUMENTAL AFFAIRS

The Committee on Instrumental Affairs has sponsored school band and orchestra contests and summer music camps. A subcommittee has been active in class piano instruction.

1. School band contests, on a state-wide basis are now being held in some 40 States, and school orchestra contests in 37, all with the cooperation of the Committee on Instrumental Affairs. The movement had its inception in 1924 with the organization of 5 State school band contests including some 30 groups entered. The total number of entries in 1930 was 935 bands, with a total enrollment of 40,000 to 50,000 high-school pupils. The committee began its cooperation with the school orchestra contests in 1928, and had 650 entries in the State contests in 1930. The National School Band Contest for

[5] Partial report. The National Bureau for the Advancement of Music cooperated largely in preparing the complete report and published (1930) the exhaustive study in a cloth-bound volume of 209 pages, retaining the title given above.

1930 was held in Flint, Mich., and brought together 44 picked bands from all parts of the country.

The committee prepares a list of numbers for use in the national and special events, including a selective list of 50 carefully graded selections from those of considerable difficulty to simpler pieces, so that the needs of all groups may be met. In this way and in other ways it is assisting in maintaining high standards of repertory. The committee also sets up the standard of instrumentation and has worked out detailed rules for judging. Contests are being arranged to arouse greater interest in school instrumental music among educators and the public, and are leading to the establishment of many new bands and orchestras and to the very pronounced improvement of those already in existence. The growth of the contest movement has been greatly increased within the States by the organization of a large number of preliminary district contests, thereby bringing the stimulus of the contests to schools in smaller and less well-to-do centers.

2. The National High School Orchestra has assembled five times. The first organization met in Detroit in 1926 to play for the Music Supervisors' National Conference. There were 230 players chosen from high-school orchestras in 30 States. The second assemblage of the orchestra was for the meeting of the Department of Superintendence, National Education Association, in Dallas, Tex., in 1927, and included 268 players from 39 States. The third meeting was for the Music Supervisors' National Conference in Chicago, 1928, and enrolled 311 players from 36 States. In 1930 the orchestra met in two sections; the first section at the Atlantic City convention of the Department of Superintendence numbered 315 players, and the second section at the Chicago meeting of the supervisors' conference had 315 players, thus drawing to the two gatherings a total of 629 different performers. In 1929 there was no meeting of the national orchestra, but four sectional meetings of the supervisors' conference assembled four sectional orchestras. The same plan will be followed in 1931, when there will again be sectional meetings instead of a national meeting of supervisors.

As an outgrowth of this movement 30 State orchestras have been organized, and some States have adopted district and county orchestras. In all, more than 45,000 different orchestras are said to be associated in this enormous movement for orchestral music in the high schools.

The National High School Orchestra is the creation of the committee on instrumental affairs of the Music Supervisors' National Association, and is largely the result of the organizing genius of its chairman, Joseph E. Maddy.

3. The National High School Orchestra and Band Camp, at Interlochen, Mich., is likewise the result of the same guidance, and is an outgrowth of the success of the National High School Orchestra. The possibilities of development of the young players were made apparent in the brief rehearsal opportunities of the four-day meetings. It was realized that a summer session could achieve far greater educational results. The struggle to finance such an enterprise was terrific and severely taxed the optimism of its sponsors. But at last, after the third summer session in 1930, the future of the camp, free from financial worries, was assured.

The camp offers its young students courses in playing all instruments; in orchestra, band, chamber music, and vocal ensemble; and in various branches of theoretical music.

It would take too much space to describe the provisions for living, health, supervision, comfort, and recreation of the camp. These are set forth in The Overture, a descriptive journal published by the National High School Orchestra Camp Association, Interlochen, Mich.

The success of the national camp has led to the organization of several private summer camps, and in the summer of 1931 the Eastern Music Camp (Inc.), of similar proportions and purposes to the national camp, will be conducted in Sidney, Me., under the altruistic sponsorship of members of the Eastern Music Supervisors' Conference and the New England Festival Association.

4. Class instruction in playing the piano has recently assumed a place of large importance in the public schools. A subcommittee of the commitee on instrumental affairs has been giving intensive study to the subject.

Although some beginnings were made before 1910, piano class instruction was still in the early stages of development 10 years ago, with classes in the public schools of only a few cities. From 1920 to 1930, however, there has been a decided growth both in general interest in the piano class movement and in the actual number of classes. This growth has been particularly marked in the past few years, as is shown by the following statistics taken from the records of the National Bureau for the Advancement of Music:

November, 1928: Requests for information about piano classes, 2,307; classes reported in operation, 298 public schools, 31 private teachers.

May, 1930: 11,863 requests from 4,853 cities and towns; 1,433 public schools, 302 private teachers, 873 cities and towns reporting.

The foregoing figures apparently do not include private and parochial schools, where piano classes are rapidly being introduced.

Thus it will be seen that piano class instruction is gaining in favor. Supervisors of music usually report that it is a valuable

addition to the curriculum, both for its own sake and also because it greatly facilitates the study of other phases of music. As educational administrators become convinced of their merit, piano classes are more and more being granted school time and school credit.

As the number of piano classes throughout the country continue to increase, there naturally follows a growing demand from school authorities for teachers who have had definite training in piano class teaching, and colleges and normal schools are rapidly supplying this necessary training. A survey made by the national bureau in May, 1929, revealed that 43 teacher-training schools in the United States were offering piano class methods courses, whereas, in May, 1930, the number had grown to 132 educational institutions.

An increasing number of private teachers are adopting group instruction in their studios, either exclusively or to supplement their individual instruction. Also many private teachers are preparing themselves for such work in the public schools. Instead of acting as a detriment to the private teacher, which has been the fear of many, the public-school classes often serve to interest greater numbers of children, many of whom later continue their studies with private teachers. This proved to be the result in Chicago, where 12,000 children were enrolled during the first year of the public-school piano classes. At the end of the year, 3,600 of these children went to private teachers for further study.

COMMITTEE ON VOCAL AFFAIRS

The Committee on Vocal Affairs was appointed at the 1926 meeting of the supervisors' conference. It was the consensus of opinion that such a committee had become necessary in order to further the development of vocal music in the public schools, which, during the rapid growth of the instrumental program in the schools immediately following the World War, had been somewhat neglected.

1. The National High School Chorus is an outstanding development of the work of the committee. In sponsoring the chorus it was desired to demonstrate: (*a*) That musicianly singing is possible with high-school choral groups; (*b*) that song material of high musical worth is available for high-school use; (*c*) that musicianly chorus singing contributes to the enjoyment and musical development of the high-school student in the same measure as instrumental performance.

The concert of the First National High School Chorus at the supervisors' conference in Chicago, 1928, under the direction of Hollis Dann, was a complete and satisfying demonstration of these points and gave a decided impetus toward better high-school chorus singing throughout the country. The Second National High School

Chorus at the Chicago supervisors' conference in 1930, reached even higher levels of attainment. The Third National High School Chorus assembled in response to an invitation from the Department of Superintendence of the National Education Association in Detroit in February, 1931.

Allotment of chorus members to the different States is made in proportion to the high-school enrollment, except that each State is allotted a minimum of two members. Each State is given until a certain date to fill its quota; after that members are chosen from applications on file from any State, regardless of State allotment, until all sections of the chorus are filled. The First National High School Chorus included representatives from 24 States; the second from 30 States, including California, Florida, New York, and North Dakota.

2. Another important work of the committee on vocal affairs is their report on the teaching of vocal music in the public schools from grade 1 through the senior high school. Through subcommittees research was conducted along four lines: (*a*) Singing during preadolescence; (*b*) singing during adolescence (junior high school); (*c*) singing by mature voices (senior high school voice classes); (*d*) ensemble singing in the senior high school. The result was a series of four treatises for the guidance of supervisors in their vocal work throughout the schools. The four reports were adopted at the 1930 session of the supervisors' conference and have been printed in the form of a bulletin entitled, "Report of the Committee on Vocal Affairs, 1930."

OTHER COMMITTEES

In addition to the educational council and the foregoing committees on instrumental and vocal affairs, the Music Supervisors' National Conference has appointed committees on the following topics: (1) Music appreciation (a report on appreciation in the elementary school has been issued); (2) music education through radio; (3) music in community life; (4) music theory in the high school. Further appointments will be made for the study of other topics.

(B) MUSIC TEACHERS' NATIONAL ASSOCIATION

The history of the Music Teachers' National Association is a long one, for its first sessions were held in 1876. For many years these meetings were largely in the nature of the old-fashioned "music conventions" of early American life, in which addresses and discussions were interspersed with concerts and recitals for association members and the townspeople of the convention city. In 1906 a radical change of policy entirely altered the character of the meet-

ings. Emphasis was turned to the discussion of subjects of interest to music educators, presented in scholarly papers by prominent authorities. These papers were preserved in bound volumes of Proceedings, which throughout the following years have become authoritative source books on numberless musical subjects. It is probable that the 24 volumes of Proceedings, with those which will come from future meetings, may be considered the greatest contribution of the Music Teachers' National Association to America's musical life.

(C) MUSIC DIVISION, NATIONAL FEDERATION OF SETTLEMENTS [6]

The music division of the National Federation of Settlements, formed in 1921, acts as the coordinating body for settlement music departments and settlement schools of music throughout the country, of which there now exist 164. Of these, 86 have been established in the past decade.

Instruction in schools and departments is given at a nominal fee, not for the purpose of turning out professional musicians into an already overcrowded field but to offer the student—be he child or adult—an emotional outlet, recreation, a new way to growth and happiness. In the thousands of students accepted not more than 5 per cent, by generous estimate, become professionals or, indeed, have that desire.

In order to give a balanced musical education, settlement schools and departments require every student to take theory as well as lessons on his chosen instrument. Many schools offer normal courses, which include applied music pedagogy with practice teaching, history of music, psychology, methods, and materials.

From the founding of the first settlement music school in connection with Hull House, Chicago, in 1892, the whole emphasis has been laid on making the best music available for all who want it, regardless of race, color, talent, or financial standing. A natural extension of this purpose has led the music division through the last three years to foster social music (group singing, ensembles formed for recreation, camp music, music in connection with dramatics, festivals, pageants) in the settlements. Social music is for fun, and though the hope of growth in musical taste and standards of performance is not lost sight of, instruction as such is not given. Needless to say here also only the best music is tolerated. Folk songs are largely used and serve to unite in joyous friendliness all races and ages that come to the settlement. In the past two years 18 directors of social music have been placed by the music division.

Trained leaders for both fields are needed. To supply the lack, the music division in 1929 inaugurated a training course for leaders.

[6] 101 West Fifty-eighth Street, New York City.

(D) NATIONAL ASSOCIATION OF SCHOOLS OF MUSIC

The National Association of Schools of Music was founded in 1924, for the purpose of securing a better understanding between member schools; of establishing a more uniform method of granting credit; and of settling minimum standards for the granting of degrees and other credentials.

In 1929 the association issued a booklet setting forth minimum requirements for the granting of degrees, bachelor of music and master of music. The booklet sets out in detail the requirements for the following majors: Piano, voice, violin, organ, cello, orchestral instruments, and composition. It also sets forth in detail the requirements in the theory of music, history of music, and ensemble. The requirements in academic subjects are not less than 18 hours or more than 30 in cultural or academic courses. The association also issued specimen examinations in harmony, keyboard harmony, counterpoint, analysis, and ear training.

The curriculum commission of the association will present at the annual meeting, to be held in December, 1930, a 4-year curriculum with public-school music as a major, leading to the degree, bachelor of music. As soon as this curriculum is approved by the association, a supplementary booklet will be issued.

The association now consists of 38 member schools, among which are some of the largest and best known university and individual schools of music in this country. The booklet of the association can be secured by addressing the president, Harold L. Butler, Syracuse University, Syracuse, N. Y.

AGENCIES FOR FURTHERING MUSIC

Of the agencies organized for the purpose of advancing musical interest throughout the country, the following are discussed because of their generally altruistic aims and their national scope.

(A) NATIONAL BUREAU FOR THE ADVANCEMENT OF MUSIC[7]

1. The National Bureau for the Advancement of Music, organized in the fall of 1914, is an institution devoting itself, as its name implies, to furthering musical interest and activity in general, rather than in any particular area of the field. It is unique in that it does this through giving assistance to other organizations and individual workers rather than by devoting its energies primarily to its own activities. Its help is given mostly in the form of literature and guidance, to those working both nationally and locally on music projects of all kinds, chiefly in the school, the church, the club and

[7] 45 West Forty-fifth Street, New York City.

the community. It carries on a wide variety of correspondence with workers in all parts of the country both in the congested metropolitan centers and in the small isolated hamlets and rural communities, and it has issued over 130 different publications pertaining to the more widely adopted activities and furnishes most of these free in single copies upon request and at printing cost in quantities. In addition to its general work the bureau is fostering a number of specific activities until such time as they may be provided for by others. These activities include State and national school band and orchestra contests as well as choral contests, music memory or appreciation contests, National Music Week and group piano instruction. It also has booklets on the subject of Junior Music Clubs. It has made surveys on credits for music in colleges and high schools, music in recreation, municipal music, music in institutions, preschool music, etc.

2. The music memory contest has been introduced into the school systems of more than 1,600 towns, cities, and counties, as a means of stimulating the children's interest in good music and familiarizing them with a considerable repertory of standard works. The basic plan requires merely recognition of the pieces when played, even if only the theme or a short excerpt is given. This plan is being elaborated upon in most places in which the contest is now being given, and includes additional features designed to enhance its educational value. The extended plan includes recognition of form, style, and other characteristics of the composition.

3. The educational benefits of National Music Week are twofold; (*a*) To formal music education in the schools; (*b*) to informal music education through the encouragement of adult activities. The schools are offered a particularly effective means for calling public attention to the work that they are doing in music. Coming, as it does, near the end of the school year, it serves as a summing-up of the entire season of school music instruction. The benefits to adult education through music week have included the formation of many musical groups which have had music week as their first objective, but which have later continued as fixtures in the community life. Through the National Music Week of 1930 a start was made in a definite movement for providing adult outlets for the musical talent developed in the public schools, thus avoiding a certain proportion of wastage.

(B) NATIONAL FEDERATION OF MUSIC CLUBS

The National Federation of Music Clubs is an organization of nearly 5,000 affiliated clubs, with a membership of approximately 400,000. There is also a junior department of over 2,000 clubs with a membership of more than 100,000.

The federation is working to arouse public consciousness to the need for music in the school, in the home, and at public gatherings; they have endeavored to give public support to the work in the schools, to stimulate the raising of standards of music in the churches, to secure support for public concerts, and to raise the standard of appreciation among their own members and the general public.

Among outstanding specific activities of the federation is the development of the junior department, the encouragement of talented young artists through prize competitions and subsequent concert engagements, the winning of wider recognition for American composers by offering substantial prizes for original compositions in several fields of music, and the fostering of opera in English. A course of study was authorized several years ago which is sequential in its subject matter and which serves as an outline for club work throughout the country.

The federation is highly organized and keeps its many member clubs in close touch with the various fields of study and activity which it fosters.

(C) NATIONAL MUSIC LEAGUE [8]

The National Music League is a nonprofiting organization whose chief work is to develop more concert activity all over the country and to present first-class concert artists for the purpose. Since its inception in 1925 the league has been studying and developing plans for the presentation of concerts in school auditoriums for the benefit of grade school and high-school students. This movement has developed logically as the outcome of the general recognition of music as a part of grade and high-school education. The league has recognized several essentials in the arrangement of its courses of concerts in schools: (1) They must be performed by first-class artists; (2) the artists must be specially trained in school concert presentation; (3) the programs must be carefully selected from the wealth of good music which everyone should know and should be coordinated as far as possible with the school music curriculum; (4) the programs should be annotated and additional material supplied in order that the music to be performed may serve as material for classroom instruction beforehand; (5) the concerts must be available at minimum cost so that no student, for financial reasons, need be debarred from attendance. Development of the plan along these lines resulted, early in 1929, in a definite course of four concerts. For purposes of economy and in order that the progress of these concerts might be successfully watched, the initial season was

[8] 113 West Fifty-seventh Street, New York City.

confined to 10 towns, all of them situated within 100 miles of New York City. For the current year (1930–31) these concerts are being extended as far west as Indianapolis.

(D) NATIONAL RECREATION ASSOCIATION [9]

The National Recreation Association, formerly the Playground and Recreation Association of America, has for more than 10 years maintained a Bureau of Community Music. The bureau has had two main purposes: (1) To provide for recreation and music workers throughout the country a means of sharing their ideas and experiences; (2) to provide for every community music worker to help organize musical activities and to find and instruct local people capable of carrying on those activities.

The following types of activities have been studied: School music leading to music in homes and the community; choirs; other choruses; festivals and contests; congregational singing; Sunday school singing; community singing; city planning in music; rural music; orchestras; chamber music groups; bands; community opera companies; music in homes; music in settlements; music in community centers; music in adult education; music in clubs; music on playgrounds; music in camps; music in industries; college groups; leader training courses.

In 1928 the association undertook a project of developing music in small towns and rural districts. At the request of the New York State Education Department the plan was successfully developed in that State during the first year. To reach the desired result it was necessary to do four things: (1) To interpret to school boards in small towns the value of having a trained music leader working in the schools and in their communities; (2) to see that a sufficient number of qualified music leaders were trained and available for service in rural communities; (3) to arrange for placing the available music missioners in towns where they could serve best; (4) to establish festival centers to which small towns could send music groups for singing and playing together. The organization of these annual festivals was considered quite important because they would serve not only as an incentive for the small town groups but would give an excellent opportunity for all the groups to hear really fine music. In addition to graduates of special music courses, many of the towns of the region were furnished music leadership that had not had it before. In 1929, upon the urgent request of the State department in Michigan, the plan was undertaken in that State. Much has been accomplished in developing community music activities,

[9] 315 Fourth Avenue, New York City.

music in 1-room schools, and in the organization of county festivals. So successful has this whole project been that the association feels a large contribution can be made to the development of rural music in America by continuing this service to State departments.

Despite the radio, phonograph, and all the means of easy, passive entertainment, the numbers of people, especially boys and girls, engaging in singing or playing for the love of it is greater than ever before in this country. Reports in 1929 from recreation superintendents in 94 cities show an enormous enrollment in choruses, bands, orchestras, operetta companies, in addition to many forms of less exacting musical activities.

MUSIC FOUNDATIONS

A number of foundations and endowments contribute generously to the support and development of music education. Among the more prominent foundations devoted wholly or partly to music education, four are described below. In the absence of authoritative statements from other foundations, the author of this survey hesitates to speak for them.

(A) THE JUILLIARD FOUNDATION

The Juilliard Foundation, John Erskine, president, 49 East Fifty-second Street, New York City, was established March, 1920, through the legacy of Augustus D. Juilliard. His will requested that the income of the legacy be spent for the general furtherance of American music, whether by the training of students, by the encouragement of composers, by the financing of performances, or in any other way that his trustees should decide.

In 1924 the Juilliard School of Music was organized to provide free instruction for students of American citizenship who should pass a competitive examination. The school was intended to bring together the best teachers of this country and Europe and advanced students of the type that hitherto have gone abroad to complete their studies. In October, 1926, the Juilliard Foundation took over the Institute of Musical Art, in New York City, one of the best of the well-established conservatories. From that date the institute has been maintained according to its traditions as a conservatory with elementary as well as advanced pupils, and the graduate school has continued to provide free instruction for very advanced students who should pass a competitive examination. In 1927 the trustees of the foundation incorporated under a charter of the regents of the State of New York a secondary board of directors who operate under the title of the Juilliard School of Music. They are elected by the foundation and submit to it an annual budget. These direc-

tors have charge of the Juilliard School in both its parts, conservatory and graduate. They recommend to the foundation, and carry out, other work for the general advancement of American music.

That other work has taken the form largely of aid to American composers and of aid to music students in the country at large. Composers are invited to submit annually orchestral manuscripts, of which the one selected by the jury is published in score and parts and in miniature score at the expense of the school. All royalties from this music go to the composer. The school has also been of aid to the composer in securing performances of these works.

For some years a large sum of money was devoted to scholarship aid for music students outside New York. It has proved wiser, however, to divert this money gradually into salaries for teachers or directors of music centers whom the school sends out to parts of the country which can make use of such aid. This system has proved especially helpful in persuading young graduates of the school to return to the part of the country from which they came.

(B) PRESSER FOUNDATION

The Presser Foundation, James Francis Cooke, president, 1713 Sansom Street, Philadelphia, Pa., is devoted to educational work chiefly as follows:

1. The department of scholarships, amounting to $250 each. The grants are invariably made to the college as an institution and not to the individual recipients. Up to and including 1929, more than 180 colleges received such grants. For the year 1930–1931, 19 colleges were granted scholarships.

2. The department of music buildings in colleges and universities has made substantial grants making possible the erection of buildings (often including halls) for purposes of music study. Eight such buildings have already been dedicated, and four additional grants have been authorized. Many additional applications will be given consideration in the order of their receipt.

In addition to the foregoing the foundation conducts a home for retired music teachers. A department for the relief of musicians in distress has made emergency grants at times of flood, cyclone, and other disasters, as well as giving assistance in rare cases to isolated educational projects.

(C) THE EASTMAN FOUNDATION

Mr. George Eastman made his contribution to music education by founding the Eastman School of Music, presenting it to the University of Rochester, and endowing it generously. He accomplished a second purpose, that of training listeners, by building the Eastman Theater, which he also presented to the university.

Mr. Eastman's philosophy is that with the increasing mechanization of industry there will develop a greatly increased amount of leisure time for the individual. He feels that there is no better use for leisure time than its employment in the production or the appreciation of music. To bring this about two things are necessary: First, training musicians, and, second, training listeners. The Eastman School of Music is dedicated to the first of these objectives and the Eastman Theater to the second.

The Eastman School of Music is organized as a professional school of the University of Rochester. It maintains a symphony orchestra, which, in addition to its concerts, weekly broadcasts over a national network. The school each season gives a series of six concerts which are devoted entirely to the production of music by native American composers, and subsidizes the publication of the best of these works.

Prior to the advent of sound films the Eastman Theatre maintained a full-symphony orchestra. It is now a motion-picture theater of the usual type, but Mr. Eastman's original purpose is attained by devoting a portion of the rent from the theater to helping finance the Rochester Civic Orchestra.

(D) CARNEGIE CORPORATION

The Carnegie Corporation, Frederick A. Keppel, president, 522 Fifth Avenue, New York City, has made grants for purposes of music education. A list of grants in the field of music since 1921 follows: 1921–22, 1 organization, $5,000; 1922–23, 3 organizations, $16,250; 1923–24, 2 organizations, $6,000; 1924–25, 7 organizations, $37,500; 1925–26, 9 organizations, $151,000; 1926–27, 9 organizations, $48,000; 1927–28, 11 organizations, $46,000; 1928–29, 11 organizations, $69,000; 1929–30, 14 organizations, $96,000; total during the past decade, $475,250.

RADIO IN MUSIC EDUCATION

There seems to be a feeling in the best-informed circles that radio in education is still in a very early stage of experimentation. This is in spite of tremendous activity in every part of the country. In radio-education activities to date, music has taken a conspicuous place, and music education by radio is probably as advanced as radio teaching of any other school subject. The reasons for this are obvious, as music lends itself most favorably to radio presentation. Nevertheless there is to-day much discussion of what constitutes the best procedure in this field, and any statement on the subject must be considered as nothing further than a report of progress. Three interesting studies of radio in education have recently appeared: (1) Radio in Education, by Armstrong Perry, the Payne

fund, 1 Madison Avenue, New York, 1929; (2) Radio Tunes In, a Study of Radio Broadcasting in Adult Education, by Levering Tyson, American Association for Adult Education, 60 East Forty-second Street, New York, 1930; (3) Education on the Air, First Yearbook of the Institute for Education by Radio, at the Ohio State University, Columbus, Ohio, by a large number of contributors, published by the Payne fund, the State Department of Education of Ohio, and the Ohio State University. In these studies careful consideration has been given to music education.

Radio was first used in education in the fall of 1920, so that the past decade compasses the entire history of this important development. From the beginning the Office of Education at Washington showed decided interest in the possibilities thus opened for education extension. A large number of organizations and institutions are intensively studying the subject, notably the advisory committee on education by radio, appointed by Secretary Ray Lyman Wilbur, of the Department of the Interior, with Commissioner of Education William J. Cooper, chairman. The committee was organized in 1929 and made its report to the Secretary in February, 1930. As a result of their recommendations, Armstrong Perry was appointed specialist in radio education in the Office of Education in Washington. Teachers College, Columbia University, maintains a department of educational research which keeps closely in touch with a group of supervised schools listening-in to musical broadcasts.

The first organized course of music appreciation to be broadcast was in Cleveland, Ohio, in 1925, when special programs designed for primary, intermediate and upper grades were broadcast to the public schools of that city. Specially prepared notebooks were used by the children. The high points in the series were the Cleveland symphony children's concerts.

The same year WMAZ, in Chicago, started a series of concerts for the In-and-About Chicago Supervisors' Club. Suburban schools listened-in as well as city schools. The State Department of Connecticut broadcasted musical programs through the New England States during the year 1926–27. Oakland, Calif., early undertook a plan of teaching sight-reading, but found the radio method inadequate. The Ohio School of the Air has put on a series of programs in rhythmic activity for young children and for one semester presented appreciation lessons for rural schools. The Detroit Symphony Orchestra has broadcasted its children's concerts for three years and the Rochester Civic Orchestra commenced to broadcast to the schools of northern New York in the fall of 1929. The New York Philharmonic Orchestra, under the direction of Ernest Schelling, is now broadcasting on a nation-wide scale its children's concerts on Saturday mornings at 11 o'clock, eastern standard time.

California ranks among the pioneer States in the radio field. Factors which have helped the cause of good music broadcasting there are: A climate favorable to good reception, the early development of commercial sponsorship, and the early linking of San Francisco by wire with Los Angeles, giving a foretaste of chain broadcasting. The Standard Oil Co. of California was among the first to make use of coastwise chain broadcasting and in 1927 established the standard symphony hour. After the first year the standard symphony hour concerts were placed under the general supervision of Arthur S. Garbett, in order to facilitate the work of the Standard School Broadcast, established in the fall of 1928. The unique plan of linking a morning preparatory lesson with a symphony concert at night has led to widespread adult interest as well as to well-organized school participation. A Teachers' Manual has been prepared by Mrs. Mary McCauley, with the cooperation of an advisory board of prominent music educators of the Pacific coast.

In February, 1930, the Columbia Broadcasting System commenced the American School of the Air in which history and literature dramalogs were given a background of incidental music which furnished an appreciative social and historical setting. Later in the year the school introduced three series of concerts broadcasted on a nation-wide basis. Symphony orchestras and choral organizations from various parts of the United States broadcast on the Thursday programs, which extend from October to May. A Listener's Descriptive Manual and notebooks for the use of individual children have been prepared by Alice Keith and Josef Bonime.

The most extensive and highly organized plan of music appreciation instruction by radio is that of the Damrosch concerts. In the spring of 1928 the Radio Corporation of America announced that Walter Damrosch, long known internationally as the conductor of the New York Symphony Orchestra, would conduct a series of concerts during school hours with explanatory comments, over the National Broadcasting Co. and associated stations. The initial series was so successful that the plan has been extended by the National Broadcasting Co. to carry through the spring of 1932. An advisory committee has been formed, on which a number of prominent educators and musicians are serving. Notebooks have been prepared for the use of school children by Ernest LaPrade, and talking-machine records of the selections have been made available by the Victor Radio Corporation for study previous to the concerts and following them.

Speaking of the National Broadcasting Co. music appreciation hour, Mr. Damrosch said:

> The whole purpose of this series is to develop a real love and appreciation of music. To accomplish this I try to avoid a system of rule and rote. I hope

I am showing my young listeners that music is the language of such emotions as they experience from day to day—joy, sorrow, laughter, and singing. Once they discover this, music will no longer seem strange to them.

These young radio listeners will be the symphonic audiences of the future. Learning to like good music when they are young, they will continue to do so when they are older and will seek to satisfy their love of fine music by going to the concerts of symphony orchestras. After all, appreciation of great art is largely a matter of habit, and habits are formed more easily when one is young.

SYMPHONY CONCERTS FOR CHILDREN

The following list of symphony concerts for children is as nearly complete as information at hand makes possible:

Boston: Boston Symphony Orchestra. Two concerts with some cooperation of the municipal and school authorities; approximate number of children in attendance, 2,400. Four concerts under the direction of Ernest Schelling, without cooperation of the municipal and school authorities (seventh season).

Chicago: Chicago Symphony Orchestra. Two series (two concerts with same program) seven concerts each, under the direction of Frederick Stock. This season (1930–31) for the first time the concerts have the official cooperation of the Chicago public schools. Attendance, 26,500.

Cincinnati: Cincinnati Symphony Orchestra. Two concerts under the direction of Fritz Reiner, with cooperation of municipal and school authorities, and three concerts under the direction of Ernest Schelling, with cooperation of municipal and school authorities. Attendance, 13,500.

Cleveland: Cleveland Symphony Orchestra. Twelve concerts under the direction of Arthur Shepard, with great cooperation of municipal and school authorities. Attendance, 25,000.

Detroit: Detroit Symphony Orchestra. Ten concerts under the direction of Victor Kolar, with the cooperation of municipal and school authorities. Attendance, 24,000.

Los Angeles: Los Angeles Philharmonic Orchestra. Eleven concerts under the direction of Artur Rodzinski, with the cooperation in part of municipal and school authorities (also of Santa Barbara and Pasadena). Attendance, 9,000.

Minneapolis and St. Paul: Minneapolis Symphony Orchestra. Six concerts under the direction of Henri Verbrugghen, with the cooperation of municipal and school authorities. Attendance, 14,000.

New York: Philharmonic Symphony Orchestra. Three series, 10 children's concerts, 5 young people's concerts, under the direction of Ernest Schelling (eighth season); no cooperation of municipal and school authorities. Attendance, 42,000. Two seasons in Brooklyn and the Bronx of two series of concents for high-school children, with the full cooperation of municipal and school authorities. Attendance, 4,000.

New Haven: New Haven Orchestra. Two concerts with partial cooperation of the board of education, sponsored by the Junior League. Attendance, 5,000.

Orange and Montclair: New York Philharmonic Symphony Orchestra. Four concerts without cooperation of school authorities. Attendance, 4,000.

Philadelphia: Two series, 10 concerts under the direction of Ernest Schelling, with the cooperation of municipal and school authorities (fifth season). Attendance, 22,000.

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San Francisco: San Francisco Symphony Orchestra. Three concerts under the direction of Wheeler Beckett and Alfred Hertz, with the cooperation of the municipality. Attendance, 7,500.

Symphony concerts for children in America date back to 1897 when Walter Damrosch conceived the idea and inaugurated a series for boys and girls from 12 to 16 years. They proved enormously popular, so much so that in 1916 he was obliged to institute a second series for younger children ranging from 6 to 12 years. The children who attended during the early years grew up, and then began bringing their own children. And the mothers who once brought their small children became grandmothers and brought their grandchildren. The limited quarters at Aeolian Hall eventually proved too small and Mr. Damrosch moved to the more spacious Carnegie Hall. This, too, within a few years became strained to capacity. Three years ago Mr. Damrosch discontinued his public concert activities in order to devote his time to the radio broadcasting with which his name is now nationally associated.

Ernest Schelling, composer, pianist, and conductor, has for some years devoted his energies largely to conducting symphony concerts for audiences of children. In New York, Brooklyn, the Bronx, the Oranges and Montclair, Boston, Cincinnati, and Philadelphia, he presents annually concerts before hundreds of thousands of children, interspersing the musical selections with an illuminating running fire of comments. Mr. Schelling uses lantern slides to illustrate his points, and he has an amazing and very valuable collection of slides on every imaginable phase of his subject.

Another of the great conductors who devotes a generous share of his time and strength to symphony concerts for children is Frederick Stock, director of the Chicago Symphony Orchestra. Since 1919–20 he has maintained series of children's concerts, the programs including commentary by the conductor on the works played, the instruments of the orchestra, and illuminating historical matter. The Chicago Symphony Orchestra has also played similar programs in Milwaukee and other cities, and in certain spring festivals at various universities.

The Civic Orchestra of Chicago was inaugurated by Frederick Stock for the purpose of training young professionals in the repertory, traditions and methods of symphony orchestra work. Since its formation it has an annual season of 25 weeks, with an average of 8 or 10 public performances. A theory department, a chamber music department, and each section of the orchestra under the coaching of principals from the Chicago Symphony Orchestra, with the regular ensemble rehearsals and concerts, comprise its activities. At present there are 20 of its graduates in the ranks of the Chicago

Symphony Orchestra, and over 60 others are on the rosters of other organizations of high standing. The work is under the direct supervision of the assistant conductor of the Chicago Symphony Orchestra, Eric De Lamarter.

THE PRIVATE MUSIC TEACHER [10]

A survey of music education in America would be incomplete without some reference to the status of the private music teacher. Prior to the World War the piano in the home was considered an evidence of respectability, and every child of cultured parents was expected to "take music lessons." Nowadays the automobile has become the token of financial standing, the moving picture supplies our diversion, and the radio provides our music. Under all these adverse conditions it is rather astonishing that the private music teacher still occupies so firm a place in our community life as a study of the field demonstrates. It is true that there have been marked changes during recent years. The older methods have largely given way to processes more in line with child psychology—the piano teacher is learning from the school teacher.

The most conspicuous development is the advent of class piano instruction. Many private teachers have failed to realize that this was an inevitable forward step, just as class instruction in other lines of education has superseded the tutoring system. Other private piano teachers have awakened to the situation and have socialized their instruction by bringing their pupils together for group lessons. Many of the most prominent teachers have not yet felt the pressure of departure from tradition; it naturally would first affect the less strongly intrenched. So to-day we find, side by side, three types of private teachers: (1) Teachers of personality and ability who have been successful in the former methods and practices and who continue in favor in their communities; (2) forward-looking teachers who are eagerly studying conditions and endeavoring to adapt themselves to the changing times; (3) teachers who are either poorly trained or weak, and who cling desperately to old methods because they are familiar or flounder hopelessly with the new ones which they can not understand. These latter, who have been in the majority, are slowly fading from the picture, but fortunately most of them were teachers as a side line only. The close of the decade finds the field of the private teacher most unsettled and uncertain. Probably the coming decade will bring some form of stability.

[10] See a discussion of The Public School and the Private Music Teacher, by the author of this survey, in the 1930 volume of proceedings of the Music Teachers National Association.

CONCLUSION

Summing up the findings of this survey, one is reminded of the slogan around which was built the program of the 1919 meeting of the Music Supervisors National Conference: "Every child should be educated in music according to his natural capacities, at public expense, and his music studies should function in the life of the community." It appears that definite progress has been made during the past decade toward the desirable goal outlined in this statement.

CHAPTER X

HYGIENE AND PHYSICAL EDUCATION

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Contents.—White House conference—A septennium of school health work—Buildings and sanitation—Health examinations—Dental disease and treatment—Ultra-violet light—Nutrition—Anthropometry—Health education—Mental hygiene—Athletics—Physical education—Research in play—School playgrounds—Community use of school property—Planning ahead—The summer camp in higher education—Land-grant colleges—Legislation

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WHITE HOUSE CONFERENCE

The White House Conference is too widely known to need extended comment here. Suffice it to say that the collecting and presenting of facts and opinions bearing on the subject of child welfare and protection have never been carried out on so comprehensive a scale. While it was out of the question to make such investigations as would bring forth new facts, or solve knotty problems, such information and such practices as exist underwent a thorough investigation, weighing, and restatement.

Considering the school child, certain suggestions or proposals stand out as significant. One of these is with regard to the length of the school day. A school day of six hours was proposed as a maximum and "if homework is required the day should be shortened accordingly. * * * Home study should be eliminated in the first six grades in the elementary school, and has little to commend it in the higher grades."

Mental hygiene loomed large, if vaguely, and vocational guidance figured prominently. The need for trained workers in these fields was stressed at much length.

The long summer vacation has become a major problem in the education of the child * * * and the committee recommends that every school should assume the responsibility of providing for the child during his summer vacation opportunities for healthful and creative activities.

In physical education—

activities should be selected according to the individual needs, interests, and abilities of the pupil. The physical education period, within the school program of the day, should be chiefly a period of instruction, and should articulate successfully with the time and opportunity outside of regular school hours for the practice of activities and games belonging to a free or controlled program.

The health needs of rural school children were stressed, as was also the frequent neglect of negro and Indian children. The need for adequate care of cripples, hard-of-hearing, speech-defective, and other handicapped children was given full attention.

The importance of cooperation of the home and of parent education in school health work was emphasized; likewise the need for adequate training of the teacher to an appreciation and comprehension of the "whole child."

The special committee on legislation recommended that there should, by mandatory law, be ample provision for protection of the child as regards school housing conditions; that there should be ample space for play and that use of playgrounds during school hours and at other times should be safeguarded. Instruction in hygiene and in physical activities should be established by mandatory law with provision for stimulation and direction of such activities by the State department of education. Provision should be made for adequate teacher training along these lines. As regards health examinations the laws should be mandatory but not too specific; the State department of education should be made responsible for carrying out the provisions of the law; there should be a State director of medical inspection; the local board of education should be responsible for local administration; teachers should be trained in the detection of signs of communicable disease and of gross physical defects; permission should be given for setting up medical or dental clinics, if this seems desirable.

The reports of the White House Conference will be published both in summary and in detail.

A SEPTENNIUM OF SCHOOL HEALTH WORK

The reports of the White House Conference on Child Health and Protection, the Office of Education sent an inquiry regarding facilities and practices in public school medical and dental work, health education, and physical education to superintendents in cities from 2,500 population and over (2,805 communities) and to county superintendents (3,546). This was the first investigation in this field since 1923. Some comparisons of the information received in this sabbatical study are of interest.

In the more recent year 15 per cent more cities of 100,000 population and over (1920) and 30,000 to 100,000 population replied to our inquiry. This fact is probably only slightly significant of extension or intension of work along this line in cities of this size. However, replies were received from about 20 per cent more cities with a population of from 10,000 to 30,000, and from 47 per cent more of those with 2,500 to 10,000 people. In 1923 only 27 per cent of the latter answered and in 1930, 74 per cent. Making allowance for a more answerable questionnaire, there can be little doubt that there has been a very great increase in the number of schools in these smaller communities which have developed a considerable program in health work along all lines. As regards county school systems, 20 per cent more superintendents furnished information (30 per cent in 1923 and 50 per cent in 1930). Moreover, the recent replies gave evidence that very much more is being done in rural schools. Just what is happening in the very large number of schools that fall between county organizations and places of 2,500 people one can only surmise, but it can hardly be doubted that very much more effort is put forth in small communities for the preservation and improvement of the health of the child than was the case seven years ago.

As regards expenditures for school health work, a comparison of data from cities 10,000 and over indicates an average increase per pupil of about 10 per cent. The average increase for medical and dental service is in the neighborhood of 15 cents per pupil (school census), while that for physical education is about 32 cents per pupil. For physical education there has been an increase of nearly 20 per cent. There has been a decided increase in maximum salaries paid in cities with a population of over 30,000. One director of school health work receives $7,500, two school physicians receive $6,000, and five cities pay $5,000. Including the above, 21 cities pay $4,000 or more. In cities of the next group (10,000 to 30,000) 12 cities pay $3,000 or more, up to $5,500.

The average salaries of physical education teachers reported are about 20 per cent higher while a maximum salary, about 40 per cent higher, is given.

A very considerable number of cities (40 per cent of those having a population of from 10,000 to 30,000) do not employ school physicians, but there has been a slight increase since 1923 in the relative number of school physicians for the school population in the cities which employ these officials.

Most of these physicians are on part time and there is probably not more than one for 10,000 pupils enrolled if all physicians were considered on full time. Apparently there has been no relative increase in the number of school nurses. There is about one nurse for 3,200 pupils.

Mental hygiene has been much mentioned of late, though the import of the term varies extremely with its user. Apparently there is less work along this line, but this is not the case, as in 1923 the term was applied chiefly to "mental testing" in the wholesale sense, whereas it is now used in a more specific way.

There has been a very considerable decline in special nutrition classes, and in the supplying of mid-morning lunches in cities. On the other hand more attention is being paid to health instruction in elementary schools. There has been a considerable increase in such instruction in high schools, though the proportion of high schools in which there is adequate teaching of this subject is still very low. With this increase has gone an increase in the number of special teachers for this subject.

In the way of equipment for physical activities there is a large increase in the proportion of high schools (junior and other) which have gymnasiums and swimming pools. What is much better, there is an increase in communities of all sizes in the number of schools, elementary and other, having playgrounds. However, in the largest cities, 12.8 elementary schools in a hundred do not have playgrounds; in the second group (30,000 to 100,000) 4.1 per 100; in the third group (10,000 to 30,000) 7.6; in the fourth group (5,000 to 10,000) 11.7; in the fifth group (2,500 to 5,000) 10; and in rural schools (100,566 schools included) 11 per 100 are without playgrounds.

Nearly half of the cities of the first group, 40 per cent of those of the second group, and 20 per cent of those of the third group report supervised physical activities after school and about 15 per cent in each group conduct such activities on Saturday.

In former biennial surveys we have stressed the importance of having parents present at the health examination, especially the first examination, of their children. Such a thing was hardly thought of in this country in 1923. In 1929 two cities of the first class reported that 100 per cent of children were attended by a parent, one, 90; one, 85; one, 80; one, 75; one, 70, and two, 50. In cities of the second group, there was 100 per cent attendance of parents in 3 and 75 per cent or more were present in 10 cities. However, in 44 out of 76 furnishing information no parents were present. In cities of the third class, 15 cities reported 100 per cent of children accompanied by parents and in 30 cities, 75 per cent or more were present. In 80 per cent no parents were present. The director of medical inspection in one of our largest cities states, "One of my hopes is to establish a routine procedure in which the parents are positively invited to be present at the time of examination." This has been a routine procedure in some cities abroad for a number of years. The school medical officer of London, where, in 1929, 88 per cent of beginners were attended by parents, remarks:

This very high proportion of parents now attending the inspection of the entrant child is a most important fact, for no general health propaganda can compare in its effect with the intimate discussion by the parent with the doctor of health questions, with the child present as an object lesson of more absorbing interest to the mother than any other could possibly be.

Seven years ago there was no "summer round up," and in very few school systems was the examination of children before entrance even thought of by school health authorities. In 1930 about 30 per cent of the largest cities reported the examination of children before entrance. In four cities 100 per cent, and in eight cities, 75 per cent or more were examined. In some cities the percentage of those examined who were treated indicates that the examinations might as well not have been made.

Fifty per cent of cities of the second group reported the examination of at least some prospective pupils before entrance. In 7 cities 100 per cent were examined and in 19 cities 75 per cent or more were examined. In one city 98 per cent were examined and 80 per cent of those found defective were treated. However, only two cities reported the treatment of more than 50 per cent of the defective.

In over a third of the cities of 10,000 to 30,000 people some examinations were made. In 13 all were examined, and in 40, 75 per cent or more. One city reports 100 per cent examined and 80 per cent treated.

The increase in replies to our inquiries by superintendents in places of 2,500 to 5,000 people, from about 27 per cent in 1923 to 76 per cent in 1930, indicates more than merely a better response conjured by the words "White House Conference." The questionnaires returned in 1923 indicated that little or nothing was being done healthwise and the comments of superintendents as to what they were doing were usually pessimistic. The replies and tone of the replies in 1930 are very different.

About 45 per cent of the 1,003 superintendents report the employment of a full or part time physician and about 63 per cent have a full or part time nurse. Some examinations are made in 85 per cent of schools reporting, and clinics are available in about 28 per cent of communities. Five per cent report a "special health supervisor." In about 90 per cent of these schools children are weighed and measured periodically. Health education is carried on in at least 97 per cent of the counties or districts represented. A noon lunch is served in 26 per cent of the schools.

The reports from county superintendents represented what is done or not done in 100,566 schools, or for about one-quarter of the total school population of the country. About 40 per cent of superintendents report the employment of a whole or part time physician

and about 50 per cent of counties have a full or part time nurse. There is a special health supervisor in 83 counties (6 per cent).

In 60 per cent of these counties pupils are weighed and measured (usually yearly). In 63 per cent the vision and hearing and teeth are examined and a general examination is reported for 52 per cent. Some attempt at securing treatment of defects or diseases is made in most of these counties. Medical clinics for treatment are available in 27 per cent of the counties. Psychological clinics are reported by 8 per cent, half of which are traveling clinics under the supervision of the State.

There is a playground for 89 per cent of all the rural schools reported. Health education is conducted in 93 per cent. A noon hot lunch is provided in 20 per cent.

BUILDINGS AND SANITATION

Dresslar and Sunderland, in studying the location of classrooms of school buildings, came to the conclusion that for latitude 36° 10′ the best orientation is either west or east. They say:

> These furnish opportunity for purification of the room by sunlight before and after school, without interference with pupils, and call for fewer hours with window shades down during school hours. The next facings in order of desirability are southwest, southeast, and south.

The methods of study of the above-mentioned writers are reported in Peabody Journal of Education for July, 1929.

The subject of ventilation we have with us always. The New York Commission has been conducting further researches during the biennium and its reports will be of interest to those concerned.

In England a comparison was made by H. M. Vernon and his colleagues of 1,357 children in specially ventilated schools (called open-air schools in that country), with 514 children attending two ordinary schools with good cross-ventilation by means of windows. Children in the latter showed distinctly less absenteeism, 6.1 per cent as compared with 7.9 per cent. Where the cross-ventilation was moderate or poor, however, the absenteeism rose to 9.3 and 10.4 per cent, respectively. The average floor space was about 14 square feet per pupil. With a mean floor space of 16.6 feet the absenteeism was 7.5 per cent, while with a mean of 12.6 feet the absenteeism was 10.1 per cent.

These investigators concluded that "an air temperature of about 60° and a cooling power of about 7 should be aimed at while the air temperature should never be allowed to fall below 55° nor the cooling power to rise above 9." On account of differences in climate other than temperature, and differences in clothing, the above thermometric readings would, in this country, be about 68° and 63°.

HEALTH EXAMINATIONS

Most medical inspectors in this country have hitherto had little time to do more than their routine work along lines already laid down for them. They have been unable to contemplate the final results of their labors. Important contributions to this end have been made by Dr. A. K. Kaiser, of Rochester, N. Y., who has compared the histories of children for whom removal of tonsils and adenoids was advised and carried into execution at the age of 5 or 6 years with the histories of those children for whom the operation was advised at the same ages but not performed. Comparisons were made and published at the end of 3 years. The children are now in high school, and the comparison was again made 10 years after the removal or nonremoval of the tonsillar tissue. The number of children in each group was 1,000.

Doctor Kaiser arrives at the following conclusions: (*a*) Outstanding benefits from operation are apparent in influencing the incidence of sore throats over a 10-year period. Ten per cent of the tonsillectomized still have sore throat, while 35 per cent of the control children have repeated attacks. Twenty-two per cent of the first group and 30 per cent of the second group still have head colds, while a higher proportion of the first group than the second have infected sinuses and post-nasal discharge. The incidence of otitis media is slightly lessened by the operation. Laryngitis, bronchitis, and pneumonia were somewhat more frequent in the tonsillectomized, but primary attacks of rheumatic infections occur less often. Incomplete removal of tonsillar tissue does not afford so good protection against the usual throat affections as does more complete removal.

About twice as many of the children who retained their tonsils were found to have enlarged cervical glands and it is significant that this group had twice the percentage with decayed teeth. The relation between bad teeth and enlarged glands is well known. One can but wish that, throughout the study, children with similar dental care had been considered, for the removal of tonsils and adenoids does not remove the possibility of infection direct from teeth to glands or a further extension of infection through the lymphatics. Apparently 43 per cent of the children who have had their tonsils removed ever had sore throat and frequent head colds and perhaps not so many, since a child may be subject to both conditions. Since these are about the only affections definitely influenced by operation it would seem that with our present knowledge the number for whom the operation was suggested might have been half as great.

Doctor Kaiser remarks that "no other medical procedure, with the exception of vaccination against smallpox and diphtheria" is so frequently advised and carried out, but the cost of tonsillectomies and the risk is far greater than for vaccinations. It is probable that each year nearly half a million school children have their tonsils removed, which at the low cost of $20 each would mean an expenditure of well over $10,000,000. This cost is negligible if the results are forthcoming, but where there are no indications other than "enlargement" of the tonsils, the operation would seem to be a pure waste, while a third of those operated upon, who previously had sore throats, still have them and about two-thirds retain their susceptibility to head colds. Such studies as this will lead to more care in selecting cases for operation and possibly clues will be found which will eventually do away with the need for such crude methods of treatment.

Investigations as to the causes of adenoids and defective tonsillar tissue are now in progress in England by a special committee of the board of education. In their preliminary report they conclude: "Prematurity, artificial feeding, and defects of environment are slightly but consistently commoner than among normal children." There is a possibility of a food deficiency. "Adenoids may occur as early as the first year of life, they seldom develop after the eighth year, and in the majority of cases are already established in the fifth year." They frequently develop following an attack of infectious disease.

> Educational retardation is a fairly common result of adenoids, especially in the higher age groups. The cause in a certain number of cases is the defective hearing which so often accompanies this condition, in others there is a certain mental lethargy which may be due to some interference with the cerebral circulation. * * * The immediate results of operation are shown to be favorable in the great majority of cases, but less so in regard to aural symptoms than to those of the naso-pharynx. There is a small amount of evidence which suggests that the improvement in some children is not maintained.

The conclusions of Doctor Kaiser are in a large degree similar to those of Collins and Sydenstrycher, in their Epidemological and Statistical Study of Tonsillitis (Public Health Bulletin, No. 175, July, 1927); and also to those of Wilson, Lingg, and Croxford, in their study of Tonsillectomy in relation to the Prevention of Rheumatic Heart Disease (American Heart Journal, December, 1928, 6. 19).

According to the Rome correspondent of the Journal of the American Medical Association (May 15, 1930), a census of school children with adenoids was made by order of the Government in the principal cities of Italy. Statistics were collected by specialists in otorhinolaryngology under the direction of the public health serv-

ice. In Milan 13 per cent of pupils were found to have adenoids and in Naples 17 per cent. Only 2.5 per cent were considered in need of surgical treatment. "In the statistics of Naples the relation between adenoids and retardation in mental development of the child was clearly proved." The retardation is in direct relation with the gravity of the physical condition.

Dr. H. S. Diehl, in a Study of Health and Scholastic Attainment of Students in the University of Minnesota (Public Health Report, December 13, 1929), concludes that physical defects which seem to be most significantly connected with poor school work are very defective hearing, overweight, flabby musculature, and anemia. Of more significance as affecting scholarship were the necessity for complete self-support, employment at physical or clerical work during the summer, and abnormal mental or emotional conditions.

Studies have been made with regard to the effects of physical defects on sickness of school children. The Milbank Memorial Fund reversed the process and, taking sickness records, attempted to find their causes in defects. They conclude that evidence that illness rates were higher among children with gross defects than among those who were free from them was by no means definite.

> In other words, the findings of the physical examination, even when considered from the point of view of specific and serious conditions, are a poor indication of the extent to which the child is actually sick.

Kemp and Collins, in their Study of the Relation Between Mental and Physical Status of Children (Public Health Report, July 19, 1929), come to the following conclusion:

> The I. Q. of children is definitely influenced by the child's experience, training, and other environmental conditions, including home surroundings, * * * It appears that the I. Q. is an indicator of the child's total present mental equipment rather than of his native intelligence, apart from his training and experience.
>
> The prevalence of physical defects decreases as the I. Q. increases. This tendency seems to be independent of race, language, and other similar factors, * * * No particular defect, with the possible exception of defective hearing, stands out as having a particularly close relationship to the I. Q. The relationship between I. Q. and physical defects seems to be of a general rather than a specific nature. * * *
>
> The mean bodily measurements of the children with high I. Q. were slightly but consistently higher than for those of low I. Q.

Dr. E. Blanche Sterling, from her investigation of the Hearing of School Children as Related to School Work (Public Health Report for May 16, 1930), concludes that among children with a loss of 9 or more units (audiometer), the older ones were in the majority. She writes:

> In no group, at any age, did the rate of children with significant hearing loss rise as high as 4 per cent. The percentage of children with significant hearing loss was generally greater in the overage-for-grade group. Among the

children doing the poorest school work in the youngest and oldest groups there was the largest amount of significant loss. In the intermediate-age groups the findings were not clear cut.

For a general study of the physical defects of school children see School Health Studies, No. 15, Office of Education, 1929.

HEART CONDITIONS

An attempt is being made in at least one city school system to secure a more definite knowledge concerning the condition of the heart than has been afforded by mere stethoscopic examinations. The results of these studies will be looked forward to with interest. In this connection we quote the following remarks of Doctor Menzies, school medical officer for London, in his 1929 report:

> It was formerly the custom to term "functional" all heart defects which were not accompanied by the signs of valvular lesions. It is now, however, better understood that there are defects of the heart muscle (myocarditis, etc.), in earlier years placed in the "functional" class, which are every whit as "organic" as valvular lesions, and even more attention is paid to hearts which betray the symptoms and signs of muscular trouble than to those with well-compensated valvular defect.

TUBERCULOSIS

Tuberculosis, while not much in evidence during the period of school life, becomes very much so in the decades immediately following—the death rate mounting ten times within 10 years and every fourth death being the work of the tubercle bacillus. Turning the picture about, those who die or are disabled by this loathsome ailment, were all in school not long before. Tuberculosis is usually a slow-going disease and it does not seem likely that deaths occurring so soon after school life were due to infection in this after-school period.

It has long been known that a considerable percentage of children are infected with the tubercle bacillus by the time of school entrance. The perfecting of the X-ray machine has brought with it the finding of the early lesions resulting from that infection. These are chiefly in the bronchial lymph nodes where, throughout childhood, at least, the disease usually remains. Children exposed to tuberculosis in the home are most commonly infected and most frequently show this "juvenile type" of tuberculosis. It is unfortunate that the evidence of disease is hid away where only the skill of the X-ray technician and the experience of the diagnostician can study them. Even so, it is a difficult task.

A study of tuberculosis in children of school age in Massachusetts has been in progress on a large scale for some years and the gist of the findings is given in Childhood Types of Tuberculosis, by Chad-

wick, McPhedran, and Maurice, published by the National Tuberculosis Association. Another notable study was that made in the schools of Philadelphia by the Phipps Institute and the Metropolitan Life Insurance Co. The results of this study are to be found in Tuberculosis in Public-School Children, by Opie, Landis, McPhedran, and Hetherington, published by the Phipps Institute.

For some years Dr. Walter L. Rathbun, of the Newton Memorial Hospital, Cassadaga, N. Y., has made examinations and observations of high-school students and a summary of his experience is given in a paper on "Tuberculosis Among High-School Students of Chautauqua County, N. Y.," published by the National Tuberculosis Association.

A summary of these various studies is given in Schools and Classes for Delicate Children, a publication issued by this office as Bulletin, 1930, No. 22. This publication contains the results of the investigation of open-air schools and classes and is the first study of this subject made since 1916.

DENTAL DISEASE AND TREATMENT

Dental decay is still the most common and most expensive of diseases in children of school age. When carious teeth are filled or removed the total expense is tremendous and there is risk of greater expense if the teeth are neglected. It is most important that these defects be prevented or treated in the most economical way. There has been much excellent research along these lines.

As regards the cause of caries, three investigations of the past biennium add to the abundant proof already offered that this condition is due chiefly to defective diet before or after birth. H. C. Pickerill, from a study of the skulls of Maori people, unaffected by contact with white civilization, noted only 1.2 per cent with carious teeth. The chief medical officer of health of New Zealand, in his report for 1929, states that perfect sets of secondary teeth were found in 172 per 1,000 Maori school children as against 51 per 1,000 white children, and that the more the Maori copies the white man's diet the more does his dental superiority vanish.

An investigation of dental diseases in Hawaii by Jones, Larsen, and Pritchard, published in Dental Cosmos for May–July, 1929, deals with decay in preschool children of many races resident in the islands. Some general conclusions were that "race and inheritance are not factors. * * * Certain diets that contain no milk and are extraordinarily high in carbohydrates have been compatible with sound enamel over a period of hundreds of years." There appeared to be a correlation between a certain type of diet and freedom from, or arrest, of decay. Diets of children 3 years of age or older con-

taining fruits and vegetables "in amounts sufficient to produce an alkaline ash were invariably associated with sound enamel or arrested decay." This was regardless of the child's exposure to sunlight or of his mode of living or activity.

In England the Commission on Investigation of Dental Disease has been following 840 selected children from 2 to 16 years of age. The commission has placed these children on special diets and will keep them under observation for three years. The basal diet of all is such as is generally considered adequate. Besides a group given only this diet there are five groups each receiving special additions to the basal diet. The children are examined every six months. At the beginning about 19 per cent of teeth were decayed. After four inspections (one and a half years) the percentage of teeth developing caries in children receiving cod-liver oil (vitamins A and D) and radiosterol (vitamins A and D), in addition to their basal diet, was approximately half that in the control groups.

In this country Prof. R. W. Bunting, of the University of Michigan, and his colleagues have succeeded in preventing and checking dental decay in children to a very large degree by the prescription of a certain general dietary in institutions where the feeding could be controlled. These studies, together with those already carried out and chronicled in previous publications of this office, point the way to fundamental efforts which should be put forth in the home through the educative activities of the school for the prevention of dental disease. Such methods are now being applied in certain schools.

On the side of tinkering with the results of our past ignorance, which is necessary for the time being, the American Child Health Association presents its Study of the Public Health Aspects of Dental Decay in Children. The report states:

> There is absolutely no relation between either stain or tartar and the development of caries. Cleaning teeth as it is done by the dental hygienist may have its own values, aesthetic or educational, but the absence of stain is not associated with the absence of caries, nor is the presence of stain found to go hand in hand with caries.
>
> Degree of gingivitis is related in a very slight degree with uncorrected decay. Gingivitis is probably enhanced to a small degree by caries if it remains uncorrected.

The filling of deciduous teeth, the report finds, "has no apparent effect upon the subsequent or contemporary decay of permanent teeth."

ULTRA-VIOLET LIGHT

In London 287 school children were divided into three approximately equal groups, one of which was exposed to ultraviolet rays in doses deemed appropriate, another to a similar lamp screened

by window glass, while the third group received no special irradiation. The experiment was carried out over a 6-month period. The height and weight of the children were noted periodically and the daily records of colds and coughs were kept. Incidence of diseases other than colds, progress in school work, and subjective impressions of teachers, physicians, and others were also noted. There was no clear evidence that irradiation had produced any results favorable or unfavorable.

In Detroit 27 children, from 11 to 14 years of age, attended for the school year a room glazed with glass permeable by ultraviolet rays. Thirty-six children of similar age in an ordinary classroom were used as a control. The two groups were studied with regard to their general physical improvement, increase of weight, and variations in temperature. Each child was given a "health score." The following statistics give the results of the comparison:

Age group	Room glazed with vitaglass average score of 27 children	Room glazed with ordinary glass average score of 36 children
11 years	75.0	77.2
12 years	82.4	84.6
13 years	83.5	86.3
14 years	88.4	88.0
Average	82.1	82.6

From the above table it will be seen that the average score for the children attending the room glazed with vitaglass was 82.1, and the average score for the children attending rooms glazed with ordinary glass was 82.6. While the latter group apparently has the advantage, the difference is so small that it is probable that if a larger group of children were studied in a similar manner, the scores would be more nearly alike. In other words, we do not find that the physical condition of children attending the rooms glazed with vitaglass was perceptibly improved over that of the children who attended rooms glazed with ordinary glass.

NUTRITION

Nutrition work has been prominent in recent years and deservedly. The study made by the Office of Education regarding open-air schools and classes showed that often miscellaneous, inefficient, and insufficient efforts are put forth for a few children selected with little certainty as to their needs. These methods are giving place to efforts at educating all pupils as to food and other health essentials and to securing the cooperation of the home. Not only do pupils who are merely poorly nourished do as well or better with the

latter method of attack, but, with a better bill of fare at home, the whole household is exposed to more healthful conditions. While it is the business of the school to furnish the best of conditions in the school it can not attempt to furnish these out of school hours, and very much of our health work is wasted because of lack of cooperation by parents, a cooperation that can usually be secured if we go at it in the right way.

ANTHROPOMETRY

There has been a revival of interest in the always interesting subject of anthropometry. The Public Health Service published the results of "Physical Measurements of Boys and Girls of Native White Race Stock" in Public Health Report for May 3, 1929. The measurements were of about 30,000 school children of native white parents and grandparents. The measurements were standing height, sitting height, weight, chest dimensions, and breathing capacity.

The studies of Franzen, of the American Child Health Association, with reference to the relation of various bodily measurements to weight were mentioned in the report for the preceding biennium. For some years certain height-weight relationships have been in common use in schools as a means of determining malnutrition or at least undernourishment. Underweight of a certain degree has also been taken as a possible indicator of tuberculosis. A number of investigations of the past few years have shown that the latter interpretation, of relatively low weight for height, does not hold water with regard to children, and a number of observers have pointed out that very many of those who are underweight are normally underweight. Moreover, we are not at all certain that because a child happens to be of average weight for average height he is well nourished. One look at his teeth will usually tell us that he is not. In fact, in one instance at least, more dental disease has been found in children considered "well nourished" than in those of lighter weight for their height.

The use of the age-height-weight table as a test of possible tuberculosis, or (except in a very general way) as an indicator of poor nutrition, has been abandoned. This does not mean that weighing and measuring is also to be dropped, for this is as useful as a means of interesting the child in his physical development as it ever was. Moreover, it is most important that we know whether the child is adding to his height and his weight as, from what knowledge we have, we should be led to expect. Comparisons with the average child are not wholly without interest, but interpretations of relationships should be made with more caution.

HEALTH EDUCATION

There has been an awakening to the needs for health teaching in secondary schools, where, largely on account of college requirements of other subjects and lack of recognition of physiology and hygiene as subjects for entrance credit, health instruction has been very much neglected.

In California the State university has amended its regulations so that physiology is now recognized as a third or fourth year science for entrance credit.

In Pennsylvania, high schools, to be accredited, must present a course in health education concerning all years of study. The State department has prepared a course of study for health instruction organized on a 6-year basis.

The National Tuberculosis Association has made investigation as to the health needs of high schools and, through its field agents, is promoting work in these institutions. These agents found a general complaint from high-school students that home study is a factor in preventing an early bed time and adequate rest. The tuberculosis association has issued a publication on the importance of rest and sleep (Rest and Sleep, by Nora L. Reynolds), but for those pupils who have insufficient time or right conditions for either it will be of little use.

The American Child Health Association, in its conferences in 1929 and 1930, brought together much excellent material on the subject of health education which can be consulted in its reports. As regards high schools one very definite decision of these conferences was to the effect that there was need in these schools for a fully prepared person who would be responsible for all the health activities and for coordinating them. The terms "health counselor" or "coordinator" have been suggested for this agent. "Health director" would do as well, and is in use in some communities.

The department of education of the city of New York has reorganized its scheme of hygiene and physical education. It has prepared a new course of study in health education and has added a staff of 36 special health education teachers besides the director and assistant directors in this field. In addition, each elementary and junior high school will have at least two or three health counselors who will aid in the advancement of the health education program in their respective schools.

An interesting and evidently profitable health project is reported from a platoon school in Newark, N. J. Experimental and control classes were selected from grades 6 A to 7 B. Hygiene had been stressed as one of the subjects to which all of these pupils were

exposed in the auditorium work. A true-false health-information test (100 questions) was given to all pupils. The groups were also given the Otis intelligence test. Special health teaching of the experimental group was begun in December and health clubs were organized in February. The teaching was transferred from the auditorium to the home room. In May the groups were retested with the same questions. At the first test the experimental group averaged a score of 75.3 per cent correct answers, while this control group made 78.3 per cent. In the retest the first group scored 90.4 and the control 86.8. This experiment had the desired and expected effect. What we wish to point out here is that the results of the first test tally closely with similar tests of health information. A study was made in 1929 by a committee on research in health education, of the Portland, Oreg., schools in the month of December to determine, "so far as a written test can do this, to what extent the health work is stimulating correct and healthful habits and attitudes." The city averages for the 6 A grade were, regular schools 84.2; platoon 84.5; and for 7 B, regular schools 76.1, and platoon 78.2. (For all grades somewhat higher scores obtained in regular than in platoon schools.)

In Philadelphia, in a recent year, all grade A pupils were given a multiple choice test containing 40 elements "so constructed as to cover, rather completely, the important items of health knowledge prescribed for teaching by the course of study for grade 7 B." The general city median for all pupils was somewhat over 63 per cent, being the same for elementary and junior high school pupils.

The material in the tests used in these three cities and the method of giving them could not have been very different. Making allowance for the nature of the questions (some of which are very questionable as to the answers expected) we can infer that something like 25 per cent of our health information (which may or may not be valuable or even correct) is not retained for a period within the school year and that probably 10 per cent more is lost during vacation. When we consider that the average grades of students in all their subjects in one of our eastern universities are about 75 per cent, the results of our health teaching, without special drives along this line, are as good as we might expect. The health teacher, being more or less of an idealist (and rightly so, considering the importance of health), is often disappointed with these results, but she should not be. Much of the child's information in hygiene if not "inherited" is absorbed in family tradition, and to oust some of these beliefs (e. g., as regards the influence of "open" pores on the bodily economy) would require the application of Doctor Holmes's crowbar, even if that method were successful. Probably most of the questions (not puzzling in their requirements) answered cor-

rectly are done so with information which is newly acquired or which corresponds with the family traditions along this line. As confirmatory of this general conclusion we would point out that the results of teaching in ordinary schools, in platoon schools and in junior high schools are about the same.

MENTAL HYGIENE

The International Congress on Mental Hygiene, held in 1930 (the first of its kind), gave prominence to special efforts for mental health in schools and colleges. The latter institutions were represented on the program chiefly by persons from our own country, since special work along this line is more fully developed here. Professor Ferrari, of Bologna, Italy, speaking of mental hygiene and the high school, said:

> It is generally admitted that three extremely complex processes form the basis of the child's personality: Biological heredity, psychophysical development, and the social environment.
>
> Science can entertain the daring hope of one day achieving the knowledge of the causes and conditions of biological heredity in men; * * * but, for the moment, the basis of our activity is almost exclusively hypothetical. As to the laws of psychophysical development, they have become so very complicated through our knowledge of the hormones—those dynamic elements so complex and so varied, especially in their interrelations—that even when it is a question of observing and of forming judgments of the individuals whose development takes place before our eyes, and although we are familiar with the modes of action of the best-known endocrine glands, and although we presume to have learned something from the experience of having dealt with certain definitely pathological cases—still only a very small number of us, I think, on the basis of the known data of endocrinology, can cherish the hope of influencing effectively the psychophysical conditions of the mass of adolescents.
>
> Observation of the antagonism that exists between the generations that immediately succeed each other is of long standing. It is said offhand that children love their grandparents more than they do their parents. The problem of discord between parent and child is the key to the psychology of the adolescent. Many reasons can be given to explain this. The innate tendency of the developing adolescent is oriented toward the goal of his progressive emancipation from the inevitable shackles of family life. We might even say that only thus is he able to justify his own existence in the world. Emotional and moral independence is the aspiration of almost all youth, but we may well understand how the parents, at least inactively, must nourish emotions quite antagonistic to this end.
>
> Judging from the point of view of our psychology, it seems to me that mental hygiene can bring the greatest help to the generations that are growing up and are attending the high schools to-day, if it will take for a goal to insure that the child, arrived at adolescence and then at maturity, shall not lose but preserve, adapted to his age, qualities that make the grace and the allurement of childhood—that is to say, originality, spontaneity, disinterested sincerity, vitality, and optimism. If we were to succeed in keeping these qualities keenly alive in the consciousness and in the practice of young people, we would

be able, I am sure, to insure in the best possible way the well-being and progress of the race. By achieving this, mental hygiene will acquit itself of one of the most important tasks of its interesting mission.

Dr. Otto Rank, of France, speaking at the session on elementary school education, said:

A human life can not be understood scientifically. * * * Mental hygiene has to do with human nature, and science should recognize its limitations in dealing with this subject.

Speaking of the emotional life he remarked:

A free natural expression of emotion in the educator will most quickly stimulate such expressions in the child. One should not, therefore, fear an occasional unpedagogical display of emotion, even of one of the less desirable emotions, since through it one is serving a higher educational aim—the formation of the human being. We can not beget only good, beautiful, noble, and moderate emotions in the child. If the child is to have a human emotional life, it will always be capable also of the ugly, ignoble, and immoderate emotions, and even these will always be more valuable from a human standpoint than complete suppression of the effect which would then find some outlet in other not always beautiful ways.

Dr. Arthur Ruggles, of Yale, said:

The organization for mental hygiene should be set up in the university department of health, because, primarily it is directly a health problem; and because, without the cooperation of college physicians, we should be handicapped for lack of sufficient personnel to conduct the careful physical examinations that ought to precede special examination by the mental hygienist.

There is a prevalent idea I wish to dispel, and that is that mental hygiene in college means the search for mental disease. It means nothing of the sort. If it did it would at once be open to resistance on the part of college men and women. Mental hygiene as conducted in the college means the search for increasing efficiency, and therefore increasing happiness, for the students * * * A certain amount of emotional upset is bound to come in the college years, and in spite of our efforts will continue to come.

The department of mental hygiene would minimize the results of such upsets as far as possible.

ATHLETICS

The Carnegie report on athletics in colleges pointed out some questionable conditions already known to exist. Whether some of the rules and regulations governing college sports are or are not wise, the institution which does not live up to these is neither a good example of sportsmanship nor a good educator. The report calls attention to many insanitary practices (anything but educational) in connection with athletic training. The least that can be done for those who take part in intercollegiate sports is to see that as little harm comes to them in the way of accident or disease as is possible.

At a meeting of the Hunterian Society of London on March 24, 1930, school medical officers, directors of athletics, physiologists, etc.,

discussed the subject of school athletics. All shades of opinion were expressed as to the physical, mental, and moral virtues of games. The editor of the British Medical Journal concludes:

> Out of such diverse opinions it is hard to draw a conclusion. Is it possible that the individual is the best judge of his own exercise requirements? The energetic boy is not readily deterred from exertion, and the more placid type has possibly less need of exercise. We accept the behavior of animals as natural, and believe them to fulfill their exercise requirements; it is at least conceivable that the intelligence of the human child is sufficient to inform him when it is necessary for him to run, and when he will profit by leisure.

In this connection the words of the regius professor of medicine at Oxford, Sir E. Farquhar Buzzard, in his address before the British Medical Association, are worth considering:

> We should be well advised not to make a fetish of games as the only means of securing relaxation from working. * * * Recreation may be of various kinds according to the interests of the individual, the pursuit of art, science, or literature, or participation in sports or games. They all involve cerebral activity and derive their beneficial effects from the fact that the center of interest is temporarily changed.
>
> The result to be aimed at is to have the mind preoccupied with problems entirely different from those associated with the individual's work. These factors are of much greater importance than the physical exercise a game involves in promoting a state of good health.
>
> You may get as much benefit by watching a game of golf, if you are interested in watching it, as by playing it, or by reading a book, for that matter, if you are more interested in books than in golf.

PHYSICAL EDUCATION

A State supervisor of health and physical education was appointed in Texas. This brings the number of State directors up to 18, in the following States: Alabama, California, Connecticut, Delaware, Florida, Illinois, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, Ohio, Pennsylvania, Texas, Virginia, and West Virginia.

There are acting directors in Maine, Georgia, and Nebraska.

A statistical study of Physical Education in City Public Schools (Physical Education Series No. 10) was published in 1929 by the Office of Education. Notable from the information secured was the considerable number of cities conducting after-school activities for any or all pupils. Not a few have, also, such activities on Saturday.

Reading between the lines in the reports received, one is aware of a rather general misunderstanding, both among special teachers and especially among school principals, regarding the management of physical activities. This misunderstanding would seem to have its origin in the ill-defined meaning of the "physical education period." Formerly this period was "all there was" to physical education, but it is now chiefly a time for teaching activities which can be

carried out, with or without supervision, at other times (as at recess, after school, or on Saturday). Until this meaning is clear and put into practice accordingly, there will continue to be misunderstanding.

A study of the organized recess, published by the Office of Education, contains the following:

> In order that the limited school-yard facilities might be used to the best advantage by large numbers of children, school authorities began to divide the yard into limited spaces suitable for the various games, to arrange the children into groups, and to assign each group to a special area for a special activity during the recess period. Supervision by special or regular teachers was introduced.

The following conclusions were drawn from the study with reference to the results of this attempt at making the most of the recess period:

> There is a tendency to a minimum of direction by teachers and a maximum of the development of pupils as leaders. * * * In general, physical directors and superintendents maintain that an unorganized recess period has little value for any child, and that inadequate time and space, along with lack of training of the grade teacher, present the main obstacles in the matter of carrying on an organized recess.

The study of the curricula of institutions giving professional training in physical education (a study which originated in a conference called by the Office of Education) was completed and published by the committee of which Prof. J. H. McCurdy is chairman. In connection with the White House Conference the committee on leadership training submitted a curriculum to a large group of advisors, and the results of this study will serve as an excellent reference for schools which are setting up or revising their professional courses along this line.

In California a study was made under the direction of N. P. Neilson, State director of health and physical education, of the needs for professional preparation of physical education teachers for secondary schools.

A detailed curriculum was published in 1930 which makes plain to all teacher-training institutions just what is desired by the State department in the way of teacher preparation for physical education in high schools. In an appendix to this publication the following qualities in the prospective student are listed as having high predictive value for success: (*a*) High intelligence, (*b*) excellent character, (*c*) good personality, (*d*) good social qualities, (*e*) excellent physical fitness, (*f*) average or better than average scholarship in academic subjects, (*g*) high ability and accomplishment in physical education activities, (*h*) evidence of leadership in extra-class student activities.

HIGHER STANDARDS FOR CERTIFICATION

There has been an increase in the number of States in which teachers of physical education are required by State departments of education to have a 4-year college course, including special training in physical education, for certification. Teachers of physical education for elementary schools must meet the above-mentioned requirements in 11 States, and after July, 1931, in 13 States. Teachers of physical education for high schools must meet the above-mentioned requirements in 16 States and after July, 1933, in 20 States.

LEADERSHIP TRAINING

More than 200 institutions including colleges, universities, and teachers colleges now offer 4-year professional courses in physical education and health education, leading to a bachelor's degree. In general, these courses are offered in the departments of education, although in some instances they are offered in the departments of liberal arts or physical education. In addition to the above-mentioned courses a large number of institutions offer as special electives courses in recreational leadership, community recreation, handicraft, pageantry and dramatics, Boy Scout leadership, Girl Scout leadership, Girl Camp-Fire leadership, and courses in the organization and management of school and municipal playgrounds.

In regard to the preparation of special teachers of health education, physical education, and recreation for rural schools a beginning has been made. A few institutions offer elective courses in health education and physical education especially planned for rural schools. A large number of State universities offer through their extension divisions, in cooperation with the United States Department of Agriculture, rural leadership courses and, in addition, assist in the organization of 4-H Club camps, which offer educational and recreational activities to more than 760,000 boys and girls in rural sections throughout the country.

In regard to the problem of preparation of courses for rural leaders, an interesting study was made by John Bradford, of the National Recreation Association. Questionnaires were sent out to leaders in the rural sections as a means of finding out the various kinds of recreational activities in which rural communities were interested. As a result of that study it was found that community singing ranked first in popularity. Dramatics ranked second, and music appreciation ranked third. Among the other activities listed in order of popularity may be mentioned: Party programs, story-telling in the home, home play, folk dancing, rural community organization, group games, active games for boys, picnic programs, active

games for girls and women, church recreation programs, discussions on reading, social dancing, camp recreation programs, handicraft, nature study, and debating.

During the past year the rural drama service of the National Recreation Association arranged for a large number of training institutes for training rural amateur play directors in various States throughout the country. These institutes were made possible largely through cooperative efforts of the extension divisions of State universities.

RESEARCH IN PLAY

Lehman and Witty have made a further contribution to the study of play activities in relation to school progress, this time with regard to retarded children as contrasted with the accelerated. They find that the former (*a*) participate in a greater number of activities; (*b*) select more social games; (*c*) select fewer humorous games; and (*d*) like games with more motor activity.

SCHOOL PLAYGROUNDS

A recent study, School Playgrounds, published by the Office of Education, points out the fact that laws have been passed in eight States requiring that certain areas be provided for school playgrounds. Rules and regulations have been made by State boards of education in 20 States requiring certain areas for school sites. Definite areas have been suggested as standards for city and rural schools of various enrollments by 36 State departments of education.

Areas required by law vary from 1 to 6 acres. Areas required by rules and regulations of the State boards of education vary in the elementary schools from 1 to 6 acres and in the high, junior high, and senior high schools from 2 to 10 acres. Areas recommended by State boards of education vary in the elementary schools from 1 to 12 acres, in junior high schools from 1 to 10 acres, and in senior high schools from 1 to 20 acres.

Furthermore, the study shows the gradual development of standards in the matter of determining the space necessary for school playgrounds for elementary, high, junior high, and rural schools. It shows the need for a well-planned layout of school playgrounds into special plots suitable for the children of the various ages and grades. It shows the tendency to plan sufficient areas, not only for the required program in physical education and recess activities, but also for after-school sports.

COMMUNITY USE OF SCHOOL PROPERTY

There has been an increase in permissive legislation regarding the use of school buildings and grounds for after-school and com-

munity recreation, not only for children but for adults. Many States have permissive recreational acts. City boards of education and State departments of education are encouraging and providing recreational programs.

Boards of education in 119 cities are maintaining or are cooperating with local park commissions in maintaining school and community recreation programs. In some cities these programs are carried on only during the summer months. In others they are carried on throughout the entire year.

State boards of education in some States are not only encouraging the use of school property for community recreation but are recommending that rural teachers participate in activities outside the classroom whenever possible.

The State board of education of Vermont advocates an extensive use of schoolhouses and grounds during the after-school hours. In a recent booklet regarding the improvement of rural schools, it is suggested that teachers arrange to spend two week-ends of each month in recreational activities with the pupils. Outdoor games and hikes are recommended. However, if the temperament and tastes of the teacher lead her to emphasize other forms of recreational activities, such as art, community singing, literature, or even cooking or sewing, it is suggested that she should try to secure the interest of the children and of the community along any of these lines. It is urged that the teacher participate in the activities of the children outside of the classroom.

In Alabama, a study of school playgrounds of the entire State was made by the State director of physical education.

PLANNING AHEAD

Definite planning for construction and equipment of indoor and outdoor recreational facilities is recognized as an important problem of a school-building program. Gymnasiums or large playrooms are advocated as a part of school-building equipment and in all new buildings these facilities are generally located so that they are easily accessible for after-school and community use.

City planning commissions are giving special attention to the matter of setting apart school and community recreation areas as a major factor in city planning. Recently a special study in regional planning was made in Denver, Colo. As a result of that study plans were submitted to local authorities showing the need for additional school and municipal recreation areas in various sections of the city in order that there might be an equal distribution of these areas for school and community use.

There is a definite tendency for locating park areas near schools in order that they will be accessible for school play. In Portland,

Oreg., and in Dallas, Tex., cooperative planning by city park commissions and boards of education has resulted in the establishment of city playgrounds near by or adjoining schools in order that the facilities may be available for the use of school children at all times and especially at recess.

In 1867 the Office of Education made its first survey of health and recreation activities and urged cities to look ahead in planning for the recreational needs of schools and communities.

During the past biennium, and especially in connection with the White House Conference, it was pointed out that while many city school systems have made unusual progress in the matter of providing health and recreational facilities, there are still many sections of the country in which provision is inadequate. It is encouraging to learn that some cities are planning ahead for 50 or 75 years.

THE SUMMER CAMP IN HIGHER EDUCATION

The summer camp has had a phenomenal development in institutions of higher education. Colleges, universities, teachers' colleges, and normal schools have established organized summer camps for the purpose of providing students with opportunities for practical experience out-of-doors as a part of the required work of certain curricula; providing for students and teachers a means for vacation study which is a combination of recreation and education; and providing professional courses in leadership for camp counselors. Among the various departments of colleges and universities by which the summer camp has been introduced may be mentioned the following: Engineering, geology, science and biology, nature study, education, health education, physical education, recreation, and forestry.

The demand for specially trained camp counselors by private, institutional, and municipal camps has become so large that departments of education, science, physical education, and recreation in colleges, universities, and teacher-training institutions are beginning to provide extensive courses in camp organization and administration for camp counselors.

THE LAND-GRANT COLLEGES

The Office of Education completed in 1930 its extensive survey of the land-grant colleges and the results have been made public in Bulletin 1930, No. 9. From the chapters on "Health service" and "Physical welfare" we quote the following:

> Reports from the land-grant institutions reveal that the stages in the development of student health service cover the widest possible range. One school reports that it provides its students neither with the services of a college physician nor with any health service facilities of any type. The picture

at the other extreme is that of the most modern provision for health care in every field. Between these two extremes range the land-grant institutions, with 8 or 10 well toward the bottom of the scale, a large number in the middle, and 5 or 6 at the highest level, not only in the excellence of their hospital plants, but also in the adequacy of the specialized service provided to the student at a very low cost. * * *

It might be expected that the excellent opportunity afforded for a demonstration of the principles of hygienic living by its practical application in college dining halls, dormitories, gymnasiums, and classrooms would have been eagerly seized upon by the institutions. Such does not seem, however, to have been the case. All too often the food furnished by the institution itself and the unsanitary conditions of its own dormitories violate many basic hygienic principles. Twenty reported that some effort is made to exemplify the teaching of hygienic principles in the dining halls and dormitories. This consists largely of inspection by some college official, although in five institutions the diet in the dining halls and cafeterias is based on the principles of the balanced ration. One institution has the class in hygiene inspect and grade the storerooms, kitchens, and dining halls. This would seem to be a most valuable practice from many standpoints. Twenty-five of the institutions replied that the gymnasiums exemplified the principles of hygiene, but in checking the reports on this section with those on the one in regard to the inspection and standards of cleanliness, insisted upon for gymnasium suits used on the floor, there seemed to be a wide discrepancy. The reports in the latter case indicated that the inspection is most cursory and that it depends largely upon the fastidiousness of the individual class instructor. There is no periodic laundering of suits in most cases, either in the men's or the women's classes, although the reports from the women's section indicated rather more care in this matter. The replies on inspection as to cleanliness of gymnasium suits for the women ranged from "none" to "weekly," with such enigmatic answers as "dependent on the self-respect of the student," "inspector expected to enforce a high standard," "reasonably fresh," and "depends on the fastidiousness of the individual teacher." * * *

The course in hygiene is the answer of the college to the insistent demand that students should know more about wise living and the care of their bodies. Theoretically it should be the most useful course in the whole curriculum, and yet 27 of 44 land-grant institutions that reported do not make such a course a universal requirement. In two institutions it is required for the women but not for the men. It is absurd to assume that men have no need for the same type of information.

What is said of the land-grant colleges will apply in a large measure to other institutions of higher education.

LEGISLATION

In the past two years Texas passed a law authorizing that "physical education shall be established and made a part of the course of instruction and training in the public elementary and secondary schools of the State by September 1, 1930."

Minnesota passed the following law in 1929:

It shall be the duty of every school nurse, school physician, school attendance officer, superintendent of schools, principal, teacher, and of the persons charged with the duty of compiling and keeping the school census records to cause a

permanent public health record to be kept for every child of school age. Such record shall be kept in such form that it may be transferred with the child to any school which the child shall attend within the State and transferred to the board of health when the child ceases to attend school. It shall contain a record of such health matters as shall be prescribed by the board of health, and of all mental and physical defects and handicaps, which might permanently cripple or handicap the child. Nothing in this act shall be construed to require any child whose parent or guardian objects in writing thereto to undergo a physical or medical examination or treatment. A copy shall be forwarded to the proper department of any State to which the child shall remove.

Whenever any child shall be brought into juvenile court, the court shall request and the custodian of the record shall furnish a complete certified copy of such record to the court, which copy shall be received as evidence in the case; and no decision or disposition of the pending matter shall be finally made until such record, if existing, shall be considered.

It shall be the duty of the State commissioner of education to cause a report to be made periodically to the children's bureau of the State of all diseases and defects that are of a continuous nature or that might result in a premanent handicap to the child, which have not been heretofore reported. He shall also furnish to the State board of health such information from the records as that board shall desire.

Any intentionally false statement in such certificate and any act or omission of a superintendent or superior officer to connive at or permit the same shall be deemed good cause for summary discharge of the person at fault regardless of any contract.

In an effort to improve the effectiveness of the school nurse the State of New York has established a special educational requirement for the position of "school nurse-teacher" as follows:

A nurse certified by the teacher training division of the State education department as possessing the required qualifications (outlined below) for working in the schools, and employed by school authorities to work in the schools, is now known as a nurse-teacher, this term replacing the term "school nurse" which was formerly used.

In the administration of the medical inspection law all provisions referring to the "school nurse" now apply to the "nurse-teacher."

The law authorizes the employment of school nurse-teachers in all the schools of the State. For approval as school nurse-teacher under the provisions of section 571–a of the education law for the school year beginning September, 1925, and thereafter, the following qualifications have been set up:

1. Graduation from an approved 4-year high-school course or its equivalent.
2. Graduation from a training school for nurses registered by the regents of the university.
3. Certification as a registered nurse in New York State.
4. Completion of at least six semester hours in approved professional courses in health education.

Limited licenses may be issued for a period of three years. During this period school nurse-teachers who otherwise qualify but who have had not more than six semester hours of professional work in health education must complete additional approved courses to the extent of one summer's work of not less than six semester hours. At the end of this limited period, on proper evidence of the completion of required professional work and at least

two years' successful experience as school nurse-teacher, the limited certificate may be made permanent.

In this connection it should be noted that the term "health teacher" no longer applies to a school nurse-teacher. In order to qualify as a health teacher one must complete the professional requirements in general teacher-training courses covering a minimum training period of three years, during which special emphasis is given to the field of health and hygiene. Nurses' training is of value to the health teacher, but is not one of the requirements.

There should not be more than 1,500 school children under the care of one school nurse-teacher, and for each additional 1,200 children there should be one additional school nurse-teacher employed. Many large high schools are employing a full-time resident nurse-teacher. In rural schools 500 pupils are often as many as one nurse-teacher can serve because of the scattered population and school centers. An increasing number of large villages with less than 500 pupils not under a superintendency are utilizing full-time nurse-teachers to a decided advantage.

The trustees or boards of education of two or more districts may unite in employing the same school nurse-teacher and in paying the expense thus incurred in proportion to the assessed valuation of taxable property in the several districts. For nurse-teachers meeting the stipulated requirements there is available to boards of education employing them a State quota of one-half the salary, $700 being the maximum paid.

In small communities, where the school medical inspector visits the school infrequently, it is very advantageous to delegate most of the health service to the school nurse-teacher, who acts under direction of the school medical inspector and summons him to her assistance when necessary to carry out the provisions of this law. Never, however, can the annual medical examination be done by her. The law, as well as the nature of such work, makes it impossible for a nurse to do it.

The function of the school nurse-teacher has been defined by the education department as follows:

"The primary function of the nurse-teacher shall be to assist the school medical supervisor (school physician or medical inspector) and other school officials in protecting the health of school children; by assisting in examining pupils; by rendering first-aid service; by visiting homes; by making health inspections of the school plant; and by such other health protective duties as are permitted by law and may be prescribed by the board of education. The secondary function of the school nurse-teacher shall be to teach health habits and health information through contacts with individual pupils, parents, and teachers. The nurse-teacher shall not be regarded as a classroom teacher nor engage regularly in hygiene instruction in classrooms."

Usually the school authorities find it an economy to furnish the school nurse-teacher with some means of transportation. Often the correction of defects found by the school medical inspector can not be secured without a home visit by the nurse; in many ways the contact the nurse furnishes between the home and the school is a valuable feature. Without proper transportation facilities it must of necessity be very limited and very expensive.

The department of education of Newark, N. J., has made similar educational requirements for the school nurse.

CHAPTER XI

EDUCATION OF EXCEPTIONAL CHILDREN[a]

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Contents.—I. The problem—II. State provisions for the education of exceptional children—III. City provisions for the education of exceptional children—IV. County provisions for the education of exceptional children—V. Preparation of teachers—VI. Mental hygiene facilities—VII. A forward look—VIII. Bibliography.

I. THE PROBLEM

1. INCIDENCE OF EXCEPTIONAL CHILDREN

When committees of the White House Conference on Child Health and Protection reported their findings as to the number of children who are physically or mentally handicapped to such a degree that they are in serious need of special educational provision, educators were startled at the magnitude of the problem. When we are told that a half million of the children in our elementary schools are mentally so retarded that they require special individualized instruction, that another half million have defective hearing to the extent that they should be taught lip reading, that a hundred thousand of our crippled children need special educational treatment, that there are fifty thousand whose vision is so impaired that sight conservation or Braille methods should be employed, and that three-quarters of a million are adjudged behavior problems, our minds stagger under the load of comprehending such figures. Yet even that is not all. In order to complete the picture, add to these figures the estimate of six to eight million children of school age who are suffering from malnutrition, tuberculous infection, or cardiac difficulties. Add to them also the epileptics, fortunately few in number. Add to them the speech defectives, who are said to reach the million mark. Finally,

[a] Since this is the first chapter to be included in the biennial survey dealing specifically with the education of exceptional children, the report is designed to give a comprehensive view of recent developments in the field without being limited to the progress of the last two years.

add a half million or more[1] who, no less than handicapped children, need special consideration because of their exceptionally high mental ability.

Individual investigators, working independently, tend to confirm in general the findings of the White House Conference, although there is wide variation in the interpretation of what constitutes mental or physical deviation which is serious enough to demand special provision in segregated groups. Hilleboe, after making an intensive study of 45 investigations as reported by 24 writers and of 146 estimates made by 89 authorities, concludes that "more than 11 per cent of the school population deviate so much from the normal as to require special class facilities, and that over 46 per cent, in addition, deviate enough from the normal to make remedial attention in the regular classroom necessary."[2] He reaches this conclusion by taking, for each type of deviate, the median of all available estimates in order that undue weight may not be given to extreme cases. He recognizes, however, the statistical weakness involved in such a procedure and offers his findings as an approximation at best.

The difficulties inherent in the task of making any accurate estimate of the number of physically or mentally atypical children can easily be accounted for. Lack of careful scientific enumerating facilities, absence of comparable definitions, variability in standards, and inadequacy of samplings are among the problems which we face in the attempt to find out what the true extent of our program of special education should be. In A Health Survey of 86 Cities,[3] the American Child Health Association points out that "one of the most obvious weaknesses disclosed in the survey is the lack of standardization in the definition of a defect and a correction," and that therefore it is most difficult to secure comparative figures on the prevalence of physical defects. Actual variations in regional conditions likewise contribute to variations in the figures which have been given out. In the field of mental deviation the problem is less marked, for standardized instruments of measurements have been developed in the intelligence tests which give at least a comparative basis of estimate, whatever their limitations may be from the sociological point of view. Yet even here authorities differ as to how large or how small a percentage of children should be assigned to special classes for the mentally defective on the one hand and for the mentally gifted on the other.

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[1] The committee of the White House Conference places this figure at a million and a half, embracing all children who have an intelligence quotient of 120 or above.

[2] Hilleboe, Guy L. Finding and Teaching Atypical Children. Bureau of Publications, Teachers College, Columbia University, 1930, p. 33. (Contributions to Education No. 423.)

[3] American Child Health Association. A Health Survey of 86 Cities. New York, 1925, p. 179.

In the midst of these difficulties and discrepancies, the White House Conference offers the latest authoritative figures resulting from years of painstaking research on the part of committee members.[4] They constitute a startling index of the supreme seriousness of the problem of the exceptional child, as well as an unquestioning challenge to continue our research, to refine our methods of enumeration, to establish our findings, and to adjust our educational program in accordance with them. The very fact that there has been a White House Conference on Child Health and Protection and that the needs of the handicapped child occupied a foremost place in its deliberations is one of the most significant developments that have contributed to the cause of special education in recent years. The light of public consideration more than ever before has been focused upon the child who is different and upon the importance of providing educational opportunities which shall be based upon *his needs* rather than upon *our convenience.*

Yet, however significant and far-reaching the sessions of the conference have been, the records of its activities will be little more than another book upon our shelves unless educators throughout the country—in State, city, and county—carry on a persistent campaign to realize the ideals embodied in that last master expression of its principles, The Children's Charter. Most gratifying is the news that a State conference on child health and protection has just been called by the Governor of the State of Indiana. This is the first of its kind which has followed up for local purposes the deliberations of the national conference. It is expected that other States will follow the example of Indiana, and that each one of them will marshal all available forces for an aggressive program.[b]

2. SOCIOLOGICAL ASPECTS

This army of children who are to-day serious deviates in mental, physical, or temperamental traits will one day become an army of adults and a very real part of the great citizenry of our democracy. Shall they be a *contributing* part of our social life, or shall they become *liabilities* that will drain the resources of society? Shall we spend our money to-day to educate them aright to social efficiency, or shall we spend it for almshouses, hospitals, reformatories, and

[4] The percentages of children in need of special educational provision which committees of the White House Conference offered are as follows: Mentally deficient, 2 per cent; mentally gifted, 6 per cent; blind and partially seeing, 0.2 per cent; deaf and hard of hearing, 2 per cent; speech defectives, 4 per cent; crippled, 0.4 per cent; behavior problems, 3 per cent; malnourished, cardiac, tuberculous, etc., approximately 20 per cent.

[b] Since this manuscript has gone to press, several other States have already followed the lead of Indiana in calling White House conferences.

prisons to house them when they are grown? Our answers to these questions will be expressed in the provisions which we are willing to make for them while they are still children; in the sincerity with which we shall undertake to capitalize their powers and minimize their handicaps; in the effectiveness with which we plan to educate them in those things which they can do and to prevent the helplessness that results from lack of training; finally in the skill with which we diagnose their difficulties and avert the unsocial attitudes that are the outcome of maladjustment.

The exceptional child is most certainly an economic factor. An intelligent consideration of the issues involved from that point of view alone would force us to double and redouble our efforts to bring to him those facilities which will help him to realize his maximum capacity despite his handicap. The superintendent of the Wrentham State School, Massachusetts, states the issue most effectively when he says: "If society does not keep mentally deficient children busy in a constructive way during the whole of their school lives, they, in a destructive way, will keep society busy during their adult lives." [5] And what is true of the mentally defective child in this respect is likewise true of the blind and the deaf and the crippled and the personality deviate.

Yet surely our national conception of educational opportunity is not limited to the economic aspects alone. If the educational philosophies of Dewey, of Kilpatrick, of Bode, and of other national leaders agree in any one phase more than in another, it is in the emphasis that is placed upon the *child* and upon his welfare *as a child*. Happiness, contentment, adjustment, achievement—these are some of the key words which apply to the education of every child, no less to the handicapped than to the normal. If the medium which will secure such results for one group fails with another, then it is the medium that should be changed, not the result. But the result always is to be expressed in terms of the *child* rather than *children*—in terms of *individual child life*, *child attitudes*, *child success* in keeping with *his* ability to succeed rather than in terms of certain *group* standards of achievement.

A twofold service, then, is the cornerstone upon which any program of education is built that considers the special needs of the exceptional pupil: Service to the child and service to society. These two are inextricably interwoven. Neither one can suffer without harm to the other. The needs of one are reflected in the needs of the other. Both are paramount considerations in the welfare of the Nation.

[5] Wallace, George L. Some Observations on the Requirements in a State Program for the Care of the Mentally Deficient. Mental Hygiene, 14: 907–918, October, 1930.

II. STATE PROVISIONS FOR THE EDUCATION OF EXCEPTIONAL CHILDREN

Organized public efforts that have been made to reach the needs of exceptional children are centered in the three major units of our educational and governmental system: The State, the county, the city. Of these three the State has been the pioneer, since the initial steps in providing for extreme deviates were taken by State legislatures throughout the country. Much progress has been realized since those first enactments were made. Particularly in the last decade has the State begun to assume responsibility which augurs well for future achievements in the education of exceptional children.

1. STATE RESIDENTIAL SCHOOLS

Until comparatively recent years the only public provision that was made for exceptional children was that initiated by the State through the medium of its residential schools. The feeble-minded, the blind, the deaf, the delinquent, who could not be taken care of at home, were congregated in institutions where some attempt was made to give suitable training. With the passing of the years these institutions are becoming schools, their objectives are becoming educational, their methods of teaching are beginning to follow the accepted principles of educational psychology. Progress in some sections of the country and in some individual schools has been vastly greater than in others. Yet we seem to be slowly but surely approaching the time when these State residential schools for the education of exceptional children shall be a part of the great State educational system, in many cases under the direct control of the same State board of education which governs other educational activities of the State. Particularly is this true with reference to schools for the deaf and the blind. In California, Idaho, Iowa, Louisiana, Montana, Ohio, Oklahoma, and Wyoming such an arrangement already holds for one or more of the types of the special schools of the State.[6] The auditor's annual report of the State of Ohio (1928) stated with reference to the State school for the deaf that "the school at present is a division in the department of education, *having been 100 years in finding its proper place.*"[7]

It is unquestionably true that the problem of the handicapped child has its physical, its medical, its sociological, its psychological

[6] Wyoming has no State schools for the blind and the deaf, caring for them in out-of-State institutions, but recent legislation (1929) has transferred the general supervision of such children from the State board of charities and reform to the State department of education.

[7] Auditor's Annual Report, Ohio, 1928, p. 160. The Legislature of Ohio took this action in 1927. (Italics are ours.)

phases as well as its educational aspects. But so also has the problem of the normal child, and those who advocate the inclusion of special residential schools under general State educational supervision point out that adequate educational provision for *all* children involves consideration of health and remedial physical or medical measures wherever such are needed; that the primary need of the handicapped child is just such a comprehensive educational program adjusted to his special needs; that only in so far as his handicap requires should he be separated from the normal experiences of normal children; and that all efforts made in his behalf—whether in State residential schools or in city day schools—should be centralized under one unified form of control. It is for this reason that in California not only has the government of the State schools for the deaf and for the blind been placed (in 1921) under the State department of education, but, in order to insure further coordination of all activities pertaining to the education of deaf children, the principal of the residential school was also (in 1928) charged with the responsibility of supervising day-school classes for the deaf in the cities of the State. This is the first State in which unified supervision has been realized to such extent, furnishing, however, a clear indication of the trend of the development which is taking place.

The function of State residential schools is coming to be increasingly recognized as a service for those extreme disabilities which can not be adequately taken care of in local communities. The superintendent of the Wrentham State School (for the mentally deficient) in Massachusetts states in his annual report of 1929, that—

> The work thus indicated for the institutional school is education and training of the children on low mental levels; training and education of mentally retarded children on the higher levels who are deficient in social adjustment and who are likely to acquire habits which will prevent them from becoming socially adjusted in the community; the training and education of mentally retarded children on the higher levels whose homes can not provide them with the proper care and supervision or whose homes are so situated that these children can not avail themselves of the advantages of a special class.[8]

From Indiana comes a similar conviction:

> The feeble-minded are too numerous and their problems are too complicated to be solved by institutional care and training. Certain types are properly institutional cases. The public-school system must prepare to assume its share of the burden preparing some of these children for life's battles. It is due each child that he have an opportunity to make the most of his possibilities. And when the child has finished his school career, the courts and the social agencies should aid in his community adjustment, if that adjustment be possible. When the nature of his case is such that the schools can not function and adjustment is impossible, then and then only should

[8] Commonwealth of Massachusetts, Department of Mental Diseases. Annual Report of the Trustees of the Wrentham State School for the Year Ending Nov. 30, 1929, p. 6.

he be committed to a State institution. Of such type there will always be a sufficient number to fill all institutions the State may build.[9]

The superintendent of the Walter Fernald State School, also in Massachusetts, makes the statement that "we no longer see the necessity for institutional care for more than 10 per cent of the feeble-minded. Ninety per cent * * * should be recognized and provided for by the community in its school program."[10] Whether these percentages be considered final or not, it is a fact that community care of its mentally retarded children in public-school classes increased more than 125 per cent during the interval from 1922 to 1927, while the number of inmates reported in State schools for the feeble-minded increased during the same period about 25 per cent. Both types of schools are unquestionably needed. The State which is the most progressive in providing for one will also make the most adequate provision for the other. Thus it accomplishes two outstanding results: (1) The fostering of the social development of the mental retardate in the ordinary group environment wherever such is possible; (2) the reservation of State custodial care for the most urgent cases needing segregation. Incidentally such a plan also serves to relieve the congestion in the State schools and to reduce the long waiting lists which now obtain almost everywhere.

The same general sentiment has been expressed with regard to those having defects of hearing. A committee appointed in 1927 to make a survey of the New York State schools for the deaf deplored the fact that "the deafened pupil, the so-called semimute, the adventitious and congenital cases do their work side by side and live in close association day after day. Generally speaking, while they (the partially deaf) may depend upon speech for communication and sight for understanding, their ears are required to do little service beyond short periods of practice with instruments of amplification."[11] Moreover, in such close association the hard-of-hearing child habitually hears the distorted speech of the deaf children, which in itself is instrumental in crippling his own articulation. On the basis of these and other facts, Dr. Emily A. Pratt, eye and ear specialist, New York State Department of Education, recommends that the responsibility for the *deafened* child be placed "where it belongs in the regular school system of the locality where the child resides, thus leaving the schools for the deaf to take care of the

[9] Fifty-first Annual Report of the Indiana School for Feeble-Minded Youth, Fort Wayne, Ind., 1929.

[10] Greene, Ransom A. Progress in Understanding and Control of the Feeble-Minded. The Annals of the American Academy of Political and Social Science, 151: 136, September, 1930.

[11] New York State, Report of Committee: Survey of Schools for the Deaf, p. 22.

deaf."[12] As a matter of fact, totally deaf children have become the problem of the public day school as well as of the residential school. In every community will be found those parents who are unwilling to send their children away from home. Moreover, in some States schools are inadequate or unprovided. Consequently numerous city school systems have faced the necessity of making some provision for such deaf children as they have in their midst. Yet, as Doctor Pratt indicates, an even greater responsibility is with the child who possesses some residual hearing in order that he may have the opportunity of using it and of developing it to the utmost in a normal environment.

This principle, which holds for the mentally retarded and for the hard-of-hearing child, is applicable also to the child with defective eyesight, yet not so blind that he needs institutional care; to the child who is anaemic, malnourished, with a tendency to tubercular infection, yet not sick enough to find admission to a hospital; to the child who is crippled, yet who can learn to help himself in many ways in the ordinary school environment; to the child who presents a behavior problem, yet not so serious that he needs to be segregated. Segregation in State residential institutions is thus primarily reserved for those disabilities which force themselves upon the attention of society through utter incapacity to cope with the demands of the social group. This is the conviction which seems to be growing more and more in the minds of educators and which is fundamental in the development of our program of special education in local school communities.

2. STATE AUTHORIZATION OF SPECIAL CLASSES

The inevitable outgrowth of the limitations set upon the enrollment of State residential schools must be the organization of educational facilities within local school systems which will comply with the varying needs of handicapped children. In the promotion of such a program State legislatures have played a significant part through the encouragement that comes from official State authorization. Of 100 legislative enactments reported by Kunzig, in his Public School Education of Atypical Children,[13] authorizing the establishment of special classes in local school systems for respective types of exceptional children, the first one dates back to 1896, but almost 50 per cent of them have taken place since 1920. To date (January, 1931) such legislation has been enacted in 26 States of

[12] Report of Emily A. Pratt, M. D., eye and ear specialist, New York State Department of Education, to John B. Hague, chief Special Schools Bureau, p. 8.

[13] Kunzig, Robert. Public-school Education of Atypical Children. U. S. Office of Education. Bulletin, 1931, No. 10. (In press.)



A Construction Unit in a Class for Mentally Retarded Children (Lincoln School, Teachers College, Columbia University, New York City)

Mentally retarded children frequently find in manual activity an opportunity for self-expression and contribution to the world's work. Academic school subjects are only one phase of education. These boys are enjoying another phase which is better suited to their individual needs and more important for their own maximum development.

the Union, applying to various groups of pupils, and under varying conditions. In 7 of these 26 States, the very first law of its kind has been passed since 1920. The number of States now giving legislative approval to the organization of special classes for the respective groups is given in Table 1, columns 1 and 2.

TABLE 1.—*Number of States giving legislative authorization and special financial aid to special education in local school systems* [1]

Type of pupil	Number of States	
	Legislative authorization	Special financial aid
Blind or partially seeing	19	12
Deaf or hard of hearing	19	14
Crippled	16	12
Mentally defective	16	6
Anæmic, tuberculous, cardiac	12	4
Speech defective	11	5
Behavior problems	10	3
Mentally gifted	4	2
Total number of States providing for one or more types	26	16

[1] Data from Kunzig, Op. Cit.

Such legislative enactments are of two general types—permissive and mandatory. The former recognizes the need for special classes but leaves to the local community the decision as to whether they shall be established or not. The latter *requires* that they be established under specified conditions. For purposes of illustration, two typical laws are cited:

Indiana.—The board of school trustees * * * is hereby authorized to establish and organize special classes, as a part of the public-school system * * * for children who * * * on account of physical disability can not be taught advantageously in the regular classes of such school corporation, whenever 10 or more children of any special type are found * * * who will profit by a type of instruction different from that given in or afforded by the regular classes.—*Indiana, Acts of General Assembly, 1927, chapter 211.*

Pennsylvania.—The county or district superintendent of schools shall submit to the board or boards of school directors plans for establishing and maintaining special classes in the public schools or special public schools for the proper education and training of all such children reported to him as fit subjects for special education and training, and it shall be the duty of the board of directors of any district having such children to provide and maintain, or to jointly provide and maintain with neighboring districts, such special classes or schools.—*Laws of Pennsylvania, 1925, No. 46, section 1413.*

Aside from the mandatory or permissive nature of the act, these two laws differ also in that the first provides only for physically handicapped children, while the second provides for "all * * * children reported * * * as fit subjects for special education and training," or, as it is elsewhere expressed in the Pennsylvania law,

for all children "of exceptional physical or mental condition." This is the most comprehensive type of law hitherto enacted with reference to the education of exceptional children, since it could well include the exceptionally gifted child and the behavior problem as well as the mentally and physically handicapped. California and Oregon have laws which have been similarly interpreted; while Wisconsin's law includes various physical defectives, the mentally subnormal, and the gifted.[14] It is significant that these are the only four States which have as yet sponsored legislation for the gifted child. In actual practice even these four would be the first to confess that they are lagging far behind the demands of the situation.

Students of State school administration tell us that it is the function of the State to encourage, to stimulate, and to guide the development of educational practice in the counties and cities within its borders; to give assistance and general supervision in the new ventures that express thoughtful and intelligent progress in local communities. The growing number of State enactments relative to the establishment of special classes is an indication of the interest which the States are taking in this aspect of their educational functions, and in making provisions for those who can not profit by the ordinary school curriculum and methods of teaching.

3. STATE SUPPORT OF SPECIAL CLASSES

Helpful as is the expression of State authorization through legal enactment, it fails to give that tangible assistance which is needed in so many communities and which must necessarily take the form of a financial appropriation designed to help in covering the excess cost of special classes. The legislatures in some States have appreciated this fact, substantiating their approval of the establishment of special classes by special financial assistance for their maintenance. The total number now granting such State aid for one or more types of classes is 16, and the group is growing at each legislative session. Table 1, column 3, shows how many are at present making special financial provision for each type of pupil.

Legislation providing financial assistance is drawn up on three different bases of apportionment: (1) Per pupil; (2) per class; (3) total excess cost. The following quotations, all taken from recent State enactments, will illustrate each of these three types:

Wisconsin.—In excess of $70 per child * * * the amount apportioned to any board shall not be in excess of the following * * *: (*a*) for each pupil residing in the district and attending * * * such day school * * * or * * * class for exceptional children $100, for the deaf or blind $250, for children physically disabled $300; (*b*) for each pupil residing outside the

[14] Kunzig discusses the interpretation of these laws, based upon correspondence with State officials.

district, but within the State, who attends * * * such day school or class * * * $400, for children physically disabled $450. (Transportation for the physically disabled is also furnished.)—*Laws of Wisconsin, 1927, chapter 488.*

Maryland.—Wherever the city of Baltimore or any of the counties of the State shall provide special schools or classes for such physically handicapped children * * *, the city or counties so providing the same shall be entitled to receive from the State of Maryland * * * the sum of $2,000 for each such class, provided that each such class shall be composed of not less than 10 physically handicapped children.—*Maryland General Laws, chapter 152, section 235 B (1929).*

Indiana.—Any school corporation which establishes * * * special classes as provided for in this act shall be entitled to be reimbursed by the State in an amount equal to three-fourths of the cost of instruction in such special classes *in excess* of the cost of instruction of the same number of children in the regular classes.—*Acts of Indiana General Assembly, chapter 211 (1927).*

This is not the place to discuss in detail the merits and the weaknesses of the laws which are in operation in the several States. Uniformity or standardization is as yet utterly lacking. Not only the amount of State reimbursement but also the number of special types sharing in it varies from State to State. Note in Table 1, column 3, for example, that only half as many States assist in the education of the mentally defective as in that of the physically handicapped, while the mentally gifted are at the very bottom of the list. The amount specified, even for the same group, varies from one hundred to several hundred dollars per pupil in those States which have adopted this basis of apportionment. Some States give the same amount of assistance to all types, regardless of handicap or of comparative costs.

These are pioneer days, in which we are working out a problem that calls for scientific experimentation and research. The basic principles, which are being emphasized by students in the field as necessary factors to be considered in such research, may be stated thus:

1. The State *should* assume a share of the financial responsibility of educating exceptional children in public-school day classes as well as in the residential schools of the State.

2. *All* types of exceptional children are entitled to a share of consideration in the reimbursement which the State makes.

3. The comparative costs of educating the respective groups should be an essential consideration in apportioning funds.

4. Rural areas should be given special encouragement in providing for the handicapped children of the community.

The greatest development of education for the exceptional child can be expected only if the State shares in the extra expense. Numerous communities, particularly those in small or isolated sections, could never assume the responsibility of the additional cost without special aid. What the extent of reimbursement should be is still to

be determined. The important point to note here is that State legislatures have begun to recognize the need and that we are on the way to greater understanding and greater support for this important field of work.

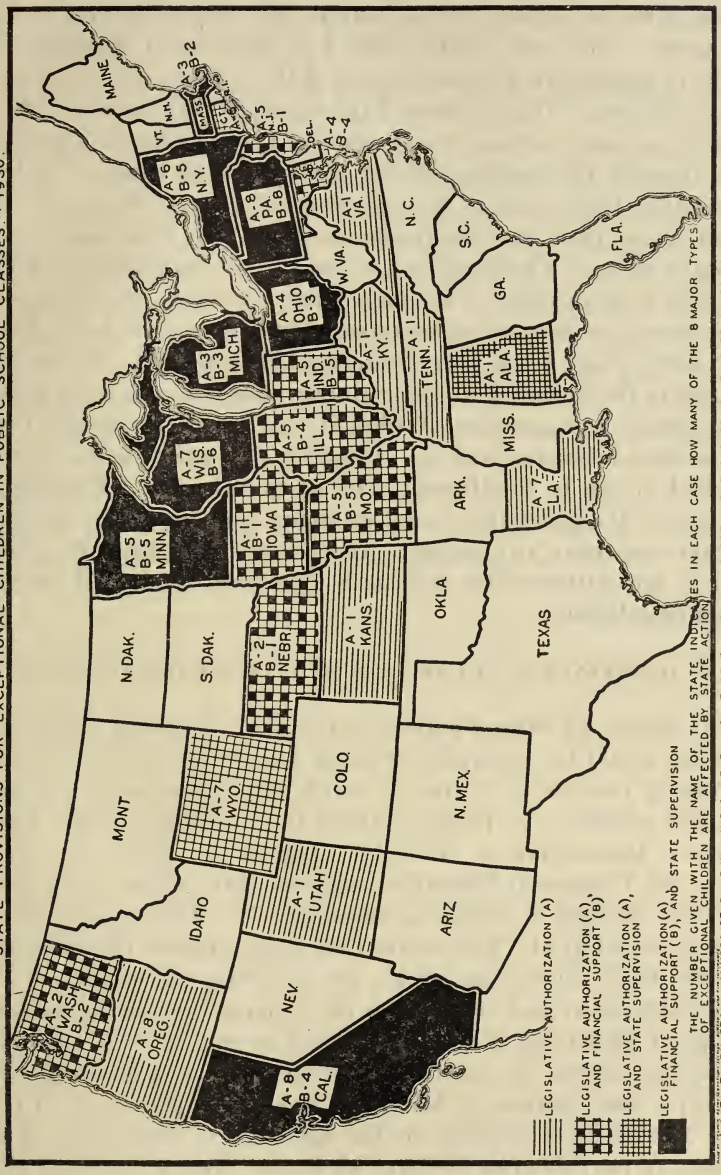
4. GENERAL STATE SUPERVISION OF SPECIAL CLASSES

A complete State program of special education will include not only legislative authorization and special financial appropriation; it will also provide general State supervision of the work done, at least on the same basis as is now provided for all classes, with the possible necessity of more intensive oversight during the initial stages of adjustment. Standardization of teacher qualifications, regulations regarding organization and maintenance of classes, provision of suggestive curricular material and of facilities for the preparation of teachers are State responsibilities. These functions are properly centered in a bureau of special education within the State department of public instruction. Eleven States have taken steps in this direction and actually have such bureaus at work. They are Alabama,[15] California, Connecticut, Massachusetts, Michigan, Minnesota, New York, Ohio, Pennsylvania, Wisconsin, and Wyoming. Several other States are assigning part-time responsibility in these matters to other members of the State staff.

A capable, enthusiastic supervisory staff, representing the State department, is an asset of untold value in the promotion of any special field of work. Its privilege will be to stimulate communities toward a better organization of facilities for the education of exceptional children in special groups, better understanding of their nature and their needs, and better adaptation of the curriculum to meet those needs. Its responsibilities also involve assistance in the formulation of regulations governing the organization of special classes, for the work requires special organization, special standards, and special teacher preparation. How many pupils should there be in a sight-saving class or in a class of children of low mentality? When may a class be organized? What are the conditions of receiving State aid? What special preparation should a teacher have? Should she be specially certificated? Should she receive additional compensation? These are some of the questions that need to be answered in any state-wide program of special education before it can function to maximum efficiency. A well-organized State supervisory plan will not curtail the prerogatives nor interfere with the initiative of an independent city school system in its program for exceptional children; yet it is the surest means of securing

[15] In Alabama the director of exceptional education is more directly concerned with the education of illiterates and with adult education.

adequate study of the problems involved and of putting into effect accepted principles of procedure.



5. STATE ENUMERATION OF EXCEPTIONAL CHILDREN

Closely linked with the State's responsibility of support and supervision is the problem of enumeration. Before an adequate program

can take shape involving certain special types of children, there must be some means of ascertaining how many children are to be provided for. This again involves the question of incidence, which was discussed at the beginning of this chapter and which involves so many difficulties. Yet each State faces the problem of devising some means of getting an accurate census of the various groups of exceptional children. Thirty States have reported that they periodically attempt to take a census of one or more types of handicapped children through the medium of the general school census. Only six report that they attempt to enumerate all types. No one of them would claim that an accurate enumeration has been made by the ordinary means. Obviously large numbers of handicapped children fail thus to be recorded. Recent intensive projects, whereby a more exact census has been taken, are reported by Connecticut, Iowa, Kansas, New Jersey, New York, Maryland, and Massachusetts. We are being aroused to the necessity of determining what our own local problem of incidence is, regardless of what it may be elsewhere or of what nation-wide estimates may be. Unquestionably that is the only way in which it can be intelligently and adequately met. Especially in the face of the many discrepant estimates that have been given out, no State can have any accurate understanding of what its problem is or is not without first making a systematic survey of its whole school population.

6. ACCEPTANCE OF THE FEDERAL CIVILIAN REHABILITATION ACT

Any survey of State progress in the field of special education of children would be incomplete without some reference at least to the increasing number of States in which rehabilitation of physically disabled persons is in progress under the provisions of the Federal Civilian Rehabilitation Act. On August 1, 1930, the Federal Board for Vocational Education reported that "there are at present 42 States engaged in rehabilitation service."[16] This number has now been increased to 44. This means that large numbers of handicapped persons, both minors and adults, are receiving the benefits of vocational education; and, in so far as the program affects the adolescent groups of school age, it certainly should be considered a part of our educational service for exceptional children. Due to its specific vocational purpose, however, it leaves untouched the great mass of physically handicapped children in the elementary schools, nor does it attempt to provide even for later adolescent groups the broad educational contacts with cultural experiences which are of great profit to

[16] Vocational Rehabilitation. Federal Board for Vocational Education, Division of Vocational Rehabilitation, Washington, D. C. Miscellaneous 1120, Aug. 1, 1930.

numerous physically handicapped young people. A State may well use this act for all it is worth, considering it one of the means available in caring for exceptional children. Yet obviously it can not and it is not intended to take the place of a comprehensive program of special education for all children who need it.

7. THE STATE'S RESPONSIBILITY TO RURAL COMMUNITIES

The most recent estimates[17] indicate that, of the 25,000,000 or more of children between the ages of 6 and 18 attending school approximately 12,000,000 are in rural areas and that 3,000,000 more of the same ages are living in rural areas but not attending school. If we assume that the percentages of exceptional children are about the same in city and country, then it is a simple matter to determine the rural problem in this field. While such an assumption can not be considered infallible, yet it seems safe to say that approximately one half of the millions of handicapped children estimated for the Nation at large live in rural districts where conditions are most unfavorable for any special consideration of their needs. Schools are small, often of the one or two teacher type; children who need help are widely scattered; transportation facilities are inadequate or lacking altogether; rural teachers have as a rule not the requisite training to give special attention to exceptional needs; local financial provisions for additional equipment, instruction, and supervision are not available. In sharp contrast stands the city school system with its possibilities for organized facilities, able to take care of its mental and physical deviates through special classes or centralized schools, special instruction, and special supervision. The city usually circumscribes its activities with its own boundaries; the rural community is dependent upon the larger unit—the county—and, beyond the county, the State.

Rural areas, then, are the State's peculiar responsibility. State authorization, State support, and State supervision are indispensable to the progress of special education in small and isolated communities which are in no way able to assume the additional financial burden alone nor prepared to plan the educational procedure that should be followed. A rural district may not even see its needs or its opportunities until attention is called to them and possibilities are outlined. It is for the State to take the responsibility of pointing the way toward capitalizing its resources and realizing its maximum progress, giving such assistance as will make possible a constructive program.

[17] Estimates made in the U. S. Office of Education.

8. SOME REPRESENTATIVE STATE PROGRAMS

For purposes of illustration of plans of operation, several programs are briefly presented to indicate what recent developments have been in the more progressive States. If standardization of general procedure be the objective in special education, then the greatest value will come from setting up certain typical plans which each State may adapt to its own local needs.

New York.—In the State department of education there has been organized a crippled children's bureau within the division of vocational and extension education. This bureau is responsible for the organization and supervision of the work with physically handicapped children under the provision of the amended education law. The major activities of the bureau are described as follows:[18]

1. To cooperate with other State departments in developing a comprehensive state-wide program for the education, physical care, and general welfare of physically handicapped children.
2. To maintain a complete register of all physically handicapped children.
3. To advise with the judges of the children's courts, county officials, and others relative to the educational needs and general welfare of physically handicapped children.
4. To advise with local school authorities concerning the educational need of physically handicapped children, including special equipment, courses of study, transportation, qualifications of teachers, home teaching, scholarships, etc.
5. To cooperate with private and public agencies in all efforts to provide help for this group of children.
6. To advise with parents and others relative to the education and care of physically handicapped children.

The judge of a children's court in any county of the State is authorized to issue an order for the care of a physically handicapped child and to charge the cost of the same to the county or subdivision thereof. Such care may include surgical, medical, or therapeutic treatment, education, transportation, maintenance, and other listed provisions. Upon approval of such order by the State commissioner of health, if it involves physical treatment, and by the State commissioner of education, if it involves educational services, the county or city[19] in which the child resides is entitled to receive a reimbursement amounting to one-half of the expenditures made for the child.

Such a plan as this makes it possible to extend help to the children in isolated rural areas as well as to those in the cities. The child is considered as an individual, and his individual needs are met through the various channels that are open either in his own community or elsewhere. Home teaching, transportation to a special center, main-

[18] State Aid to Counties for Physically Handicapped Children. University of the State of New York Bulletin No. 858 (August, 1926), p. 6.

[19] Cities were included in the act by an amendment passed in 1927.

tenance in another district where a special center has been organized, hospital care, and medical attention are all provided for in the act. Educationally he is carried to the special class which he needs, instead of waiting until the special class is brought to him. If such a program could be extended to include mental defectives, we should have the basis for a state-wide comprehensive service to handicapped children.

New York, however, has not left its mentally retarded children without consideration. Through State legislation the organization of special classes for both mental and physical deviates is mandatory in local districts if numbers warrant their establishment; special financial provision is granted under given conditions; and State supervision is available. Rural communities, however, can seldom take advantage of these provisions because of the smallness of their schools and the lack of numbers needed to form a class.

The State department has been further attentive to the education of mentally defective children through a study of their curricular requirements. A committee was appointed in 1927 to plan for the construction of a course of study for special classes. The fruit of its labor appeared in 1930 in the form of a bulletin issued by the University of the State of New York. A special class curriculum study is offered, not as an ideal course of study, but as a pioneer attempt in producing suggestive material for the use of teachers of retarded children. Other similar efforts have been made elsewhere in the country to meet the insistent demand for better adaptation or change of the curriculum to give the best type of education to these children.

Wisconsin.—Wisconsin has in its State department of education a supervisor of "physically disabled" children (primarily crippled), a supervisor of deaf, blind, and speech defectives, a physiotherapist, a clinical psychologist, and an assistant clinical psychologist. The two last-named officials are chiefly concerned with the education of mental deviates among the school children of the State. This supervisory staff works directly with superintendents, principals, teachers, and children, in the effort to promote the efficiency of a state-wide special education program. The clinical psychologists reported for the biennium 1926–1928 a total of 2,230 individual psychological tests, 240 supervisory visits, and 213 official conferences.

The legislature of 1927 placed on the statutes a revised law for State aid to school districts, providing educational privileges in special classes for exceptional children. The provisions are made on the per pupil basis, varying, however, with the type of handicap and the accompanying necessary expense. Transportation of crippled children to a regular school or special center, as well as partial maintenance outside the district in which they reside (when such maintenance is deemed essential), is included in the State regulation.

Through such State aid and State supervision it has been found possible to organize special classes in at least some of the small communities. Approximately 12 or 15 classes, most of them for mental defectives, are now functioning in towns having a population under 5,000.[20] A printed course of study for mentally handicapped pupils has also recently (in 1927) been issued by the State department, so that teachers throughout the State have the advantage of constructive suggestions for their classroom work.

Other States may be cited which have done outstanding pioneer work in the field of special education. Ohio has extended its program for physically handicapped children to reach into almost every corner of the State. Michigan, likewise, has a progressive State program for physical deviates. Its latest report (1931) shows that special classes have been organized in 68 school districts out of a total of 180 districts having 500 or more on the school census.[21] Massachusetts has been a leader in its provisions for mental retardates; it has also a developing program for other groups of exceptional children; and it has just (in 1930) enacted a new law providing for an annual census of crippled children and for their home instruction under certain conditions. Minnesota has a carefully formulated State plan of supervision, with a statement of standards that was issued in 1927, part of which, however, was superseded by legislation enacted since that time. Connecticut, California, New Jersey, Illinois, and Wyoming have all done much constructive work, reports of which are available. Yet, while there is every reason to be glad for these initial steps that have been taken, there is a long road ahead before any one of these States will have reached the realization of an equal educational opportunity for *all* exceptional children. If this is true even of the best of them, what shall we say of others which have as yet seen no way clear for even the beginnings of a state-wide program? There are vast fields ahead to conquer, that call for a united warfare in which State, local, and national workers shall all serve in one great cooperative enterprise.

III. CITY PROVISIONS FOR THE EDUCATION OF EXCEPTIONAL CHILDREN

Numerous studies have been made from time to time of the extent to which cities have made provision for exceptional children through the organization of public-school classes. In spite of this fact, data

[20] The biennial report of the State superintendent for 1928 reported 11 such classes, of which 7 were for mentally retarded children.

[21] Lee, J. J. Survey of Special Classes for Exceptional Children in 180 Michigan Cities and Towns. State of Michigan, Department of Public Instruction, February, 1931. (Mimeographed report.)

which give actual number of cities, number of classes, or number of pupils must be offered without any claim to absolute accuracy, since no investigation made by the questionnaire method can be certain of including every case that properly belongs in the group. There has been so much duplication of such studies that it is not surprising that school officials sometimes grow weary of answering. The result is that a city included in one report may not appear in another, and consequently the numbers of classes and of pupils enrolled will not always seem consistent in various reports that are made. Further difficulty comes from the difference in phraseology used in questionnaires sent out by various investigators with consequent dangers of difference in interpretation. However, the trend is clear, showing a progressive increase in the provisions made by school systems throughout the country.

Investigations which have been used as the basis for the data given in this report are the statistical studies of the United States Office of Education; various surveys made under the auspices of the National Committee for Mental Hygiene, the National Society for the Prevention of Blindness, the National Research Council, the Conference of Executives of American Schools for the Deaf, and the International Society for Crippled Children; reports of committees of the White House Conference; and studies made by individuals, principally those by Heck, Rogers, and Kunzig. These are all listed in the bibliography at the close of this chapter.

The very fact that so many studies have been made in this field indicates a healthy interest in the subject. We need only to coordinate our research in such a way that needless duplication will be avoided and that maximum results will be secured from the effort expended. We need not *fewer* but *more* people working on specific phases of the problem, working in such a way that the findings of one will supplement those of another, thus building up a great fund of information which may furnish guiding principles for the next steps.

As we look back over the development of the past 5 or 10 years, we find that the progress of special education in city school systems consists on the one hand of a very definite increase—for some types more than for others—in the number of special classes and schools organized for exceptional children, and, on the other hand, of the growing consciousness that such special classes demand a special treatment, special organization, special curriculum, special methodology, and special expenditures. In the realization of these demands we are struggling toward a goal that is but vaguely defined—even floundering at times in our uncertainty. It is in the myriad aspects of these problems that research work is sorely needed.

1. EXTENT OF FACILITIES

Statistical publications of the Office of Education furnish an index of the growth of public-school facilities open to the mentally deficient, the deaf, and the blind. Other investigations have been used to supplement these reports, in order to give a tabular summary of the growth of special education through three successive periods. Table 2 presents these comparative data wherever such are available. It must be noted that the figures given refer only to the enrollment in special day (or parental) schools or classes in public-school systems. State residential institutions and private schools are thus excluded. The purpose of the table is to show what the growth of the special-education movement has been in public schools as expressed by the number of pupils enrolled in special classes and by the number of cities and of States in which such classes exist. It must also be remembered throughout that the figures can be considered only approximate, owing to the difficulties encountered in securing accurate data.

TABLE 2.—*Enrollment in special day schools and classes as reported in 1922, 1927, 1930* [1]

A. CLASSES FOR MENTALLY DEFICIENT CHILDREN

Year	Number of pupils enrolled	Number of cities	Number of States	Estimated incidence = 500,000
1922	23,252	133	23	
1927	51,814	218	32	
1930	[2] 55,154	[2] 315	[2] 40	

B. CLASSES FOR DEAF OR HARD-OF-HEARING CHILDREN

Year	Number of pupils enrolled	Number of cities	Number of States	Estimated incidence = 500,000 [3]
1922	2,911	74	16	
1927	3,515	83	22	
1930	3,901	105	26	

C. CLASSES FOR BLIND OR PARTIALLY SEEING CHILDREN

Year	Number of pupils enrolled	Number of cities	Number of States	Estimated incidence = 50,000
1922	([4])	44	12	
1927	4,465	80	18	
1930	5,000	106	23	

[1] In some cases, data are as of 1929, if no later information is available. Data are taken from bulletins of the U. S. Office of Education and other surveys. See bibliography at close of chapter.
[2] Limited to cities of 10,000 population or more.
[3] The American Association to Promote the Teaching of Speech to the Deaf gives this estimate as about 3,000,000, including every degree of deafened condition.
[4] Data not available.



Courtesy of the National Society for the Prevention of Blindness

CORNER OF A TYPICAL SIGHT-SAVING ROOM

Note especially the adjustable desks raised to an oblique position, which eliminates the eyestrain caused by reading from a book lying flat on a horizontally placed desk top. The light coming over the left shoulder of the child adds to the conditions of minimal strain. If these conditions are good for children with defective eyesight, why not for normally seeing children?

TABLE 2.—*Enrollment in special day schools and classes as reported in 1922, 1927, 1930*—Continued

D. OTHER GROUPS. (1929 OR 1930 STATISTICS.[2] ACCURATE DATA FOR 1922 AND 1927 NOT AVAILABLE)

Group	Estimated incidence	Number of pupils enrolled in classes	Number of cities reporting classes	Number of States
Speech defective	1,000,000	52,112	65	22
Anaemic, tuberculous	6,000,000	31,186	126	31
Crippled	100,000	10,110	93	19
Delinquent, unstable	750,000	9,040	55	25
Gifted	[5]500,000	3,883	30	18

[2] Limited to cities of 10,000 population or more.
[5] This is a much more conservative estimate than that of the committee of the White House Conference.

The largest enrollment reported is in classes or schools for mentally deficient children. Three hundred and fifteen cities (of cities of 10,000 population or more), distributed among 40 States, have made some provision for over 55,000 children. If towns of less than 10,000 population had been included, the numbers would have been somewhat increased, though the provision in these small communities is still very limited. The important point to note is the growth in the number of pupils enrolled from 23,252 in 1922 to 55,154 in 1930—an increase of 137 per cent. The percentage of increase in the number of cities that have organized special classes to provide for these children is just as great. The growth is without doubt a positive one in a forward direction; yet again we can hardly assume an attitude of self-satisfaction when we consider that, out of an army of 500,000 children who need special education because of a mental handicap, only about one-tenth are being reached through organized facilities. One can not help but be almost overwhelmed when one compares not only these figures but also the figures for other groups included in Table 2, giving the estimated incidence on the one hand and on the other hand the number of children provided for. The contrast is appalling, yet to the educator who has the vision of the ultimate goal before him it constitutes a tremendous challenge; and he may well take courage from the fact that the growth has been a real one during the past decade—so real that it promises continued development in the years to come.

The effect of adequate State support and supervision is well demonstrated by a survey of the cities in which special education has been organized. Of the 315 cities which provide for mentally retarded children, 39 are in Massachusetts and 38 in New York. Six States—Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and Wisconsin—contain more than 50 per cent of all the cities which have made such provision. Again, Ohio alone lays claim to one-fourth of the cities which have established special classes for

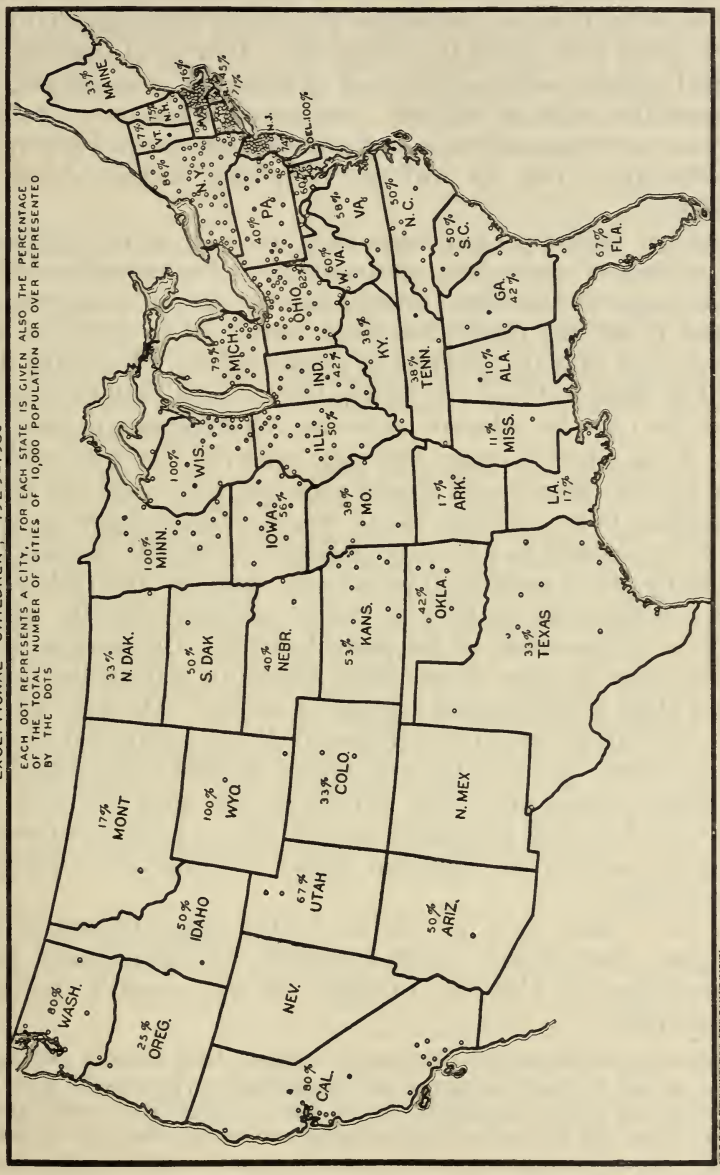
crippled children as well as of those which have provided for visual defectives. Of a total number of 15 cities of less than 30,000 population which have sight-saving or Braille classes, 11 are in Ohio. Almost one-fifth of the cities maintaining classes for the deaf or hard-of-hearing are in Wisconsin. In general, it is rather clear that the greatest progress has been made in cities and towns of those States where a definite recognition of the importance of the work has found expression through legislative support. No doubt there is a reciprocal relationship here of cause and effect. Educational leadership in the State can do much to mold public opinion and to secure legislative enactment. Legislative enactment, in turn, will promote the cause for which it stands and extend opportunities into areas that would otherwise remain untouched.

In the field of behavior problems, there are two distinct methods of procedure which have been followed. In approximately 50 cities special schools or classes for disciplinary cases have been organized. Pupils are placed in these classes *after* they have repeatedly or seriously offended. The other avenue of approach is through the child guidance clinic, which attempts to avoid the offense through early preventive treatment, or to avoid its repetition through remedial work. No doubt both of these procedures will continue to be necessary. Such schools as have been established in Cleveland, in Chicago, and in other cities for those pupils who are serious disciplinary problems are contributing much toward the possibility of better citizenship. Yet certainly the clinical work with the young child who early exhibits signs of social maladjustment should be expected to minimize the need for such special schools. The general question of mental hygiene and mental hygiene clinics will be considered at greater length in another section of this report. Mention of it is made here only because it inevitably belongs with the consideration of the child who presents a behavior problem and of the provisions made by the community in his behalf. Let the special school or class do what it can with the child who has reached the point of maladjustment where it seems necessary to segregate him; but let the principles of mental hygiene be used for all they are worth in keeping him from reaching that point, as well as in the administration of the special class if he must be so assigned.

2. CURRICULAR PROVISION

Having located the exceptional child and placed him in a school environment which is most conducive to his greatest development, the educational specialist next faces the task of offering him the type of activity which takes into account his particular difficulty or need. With the physically handicapped child the problem is simpli-

fied by the tangible demands made by defective sight or hearing or by a crippled body. Techniques have been devised by which the deaf can be taught to "hear" and the blind to "see" their school assign-



ments. The speech defective are taught to articulate, the crippled receive their therapeutic treatments, and the anaemic are given the advantages of fresh air, sunshine and rest. With these groups

equipment and methodology are the essential factors; the content of the curriculum may in most cases follow that of the regular classes, with the addition of special vocational opportunities.

With the behavior problem, the situation is similar, for the treatment accorded him must be centered about his temperamental difficulties rather than about the curriculum. Individual interests, individual abilities and disabilities are of course to be considered, but so should they with all children. Radical modification of the curriculum is not frequently necessary with the behavior problem unless his difficulty is tied up with an exceptional mental ability or disability.

With the mentally exceptional child the case is very different. The problem of curriculum construction for the mentally slow or for the bright has taxed the thought and the skill of many who are engaged in guiding their educational course. Here again we note progress, but only the progress of pioneer efforts. From the days of "The Boston Way," in which Boston public-school teachers blazed the trail for adequate curricular modifications to meet the needs of the retarded group, numerous attempts have been made to think out the objectives of special class instruction and the means of realizing them. No one to-day would claim to know in more than a very general way what those objectives are, for they are tied up with the whole problem of educational sociology and philosophy. We are working on the basis of "social efficiency" for the mental defective to the extent of his limited ability. Outstanding work has been done in some of our State schools in making the feeble-minded child a contributing member of society. The plan worked out in the Walter Fernald State School in Massachusetts and adopted in other State schools is too well known to need description here. Our public schools are feebly striving in the same direction, yet handicapped by lack of equipment, as well as by the shortness of the school day during which the child's activities are supervised by the teacher.

We quote again from an address by the superintendent of the Wrentham State School, in Massachusetts, an exceptionally good representation of what the education of the mentally defective should involve:

> In educating mental defectives, *academic* training, *hand* training, and *social* training should be well correlated and emphasized in accordance with the needs presented by the individual child. It will be noticed that hand training is bolstered on one side by academic training and on the other side by social training. Hand training is of great importance because a child who is retarded mentally to the extent of being classified in the mentally defective group will never be able to earn a livelihood by any other means than by the use of his hands. However, while giving this hand training, the importance of academic

work should not be minimized. *The child should have academic work to the extent indicated by his mental level, because he has a right to it. His academic education up to his mental level enables him to enjoy life more and to conduct himself on a higher plane.* Academic training should not be attempted above his mental ability—in the first place, because he can not absorb it; in the second place, because it is likely to confuse and embarrass him and make him unhappy. This is likely to induce in him antisocial traits. In the third place, it is a waste of effort and money to attempt to train the mentally deficient academically above their mental levels. *The social training is more important than either or both of the others* because the individual who has acquired both academic training and hand training and has not gained social adaptation is sure to fail. If on the contrary he is properly adjusted socially, he will probably, without academic training or hand training, be able, after his school life, to acquire sufficient skill in hand work to support himself. Therefore, it is extremely important that the social training of mentally defective children be emphasized in every possible way. These children should be encouraged to take part in competitive games and play with normal children, for there are many mentally defective children who can compete in games on fairly equal terms with the normal. This will go a long way toward compensating for the sense of inferiority engendered by their not being able to compete with normal children in scholastic work.[22]

The principles laid down here have been the foundation upon which curriculum construction has taken place in States and cities. Reference has already been made to the work done in New York and Wisconsin. Connecticut, Massachusetts, and other States have engaged in similar projects. Among the cities in which intensive curricular activity has been recently carried on for special class children are Denver, Colo.; Detroit, Mich.; Newark, N. J.; Rochester, N. Y.; Oakland, Calif.; and San Francisco, Calif. Needless to say, much research needs to be carried on before we can approximate the needs of the mentally retarded in an adequate course of study even in the elementary school. Provision on the secondary level is an even more complicated matter. Yet certainly if the compulsory attendance law keeps the mentally defective child in school until he is 14 or 16 or 18 years old, then the educational scheme must plan for him that instruction which will be in keeping with his physical maturity as well as his mental immaturity.

The problem of the very bright child is still more conspicuously unsolved. As is indicated in Table 2, not more than about 30 or 40 school systems (50 at the most, if we make allowance for inadequate data) are giving any special recognition to the gifted child beyond permitting an accelerated progress through the medium of special promotion or "skipping." Special curricular provision which will enrich his experience is rare indeed. The so-called progressive schools are probably meeting the needs of the bright child more adequately

[22] Some Observations on the Requirements in a State Program for the Care of the Mentally Deficient. George L. Wallace. Mental Hygiene, 14: 914–915, October, 1930. (All italics are ours.)

through the encouragement of initiative and creative work. A few cities are doing promising work in the regular public schools, notably Cleveland and Los Angeles. On the high-school level a recent report from Baltimore is worthy of note. A 4-year course has been established in girls' secondary schools in which it is proposed to include one year of college work. Teachers are carefully selected for their peculiar fitness and interest. "Students who have satisfactorily completed the accelerated course * * * will be admitted to advanced standing in Goucher College upon the same terms as students from recognized junior colleges." There is to be close cooperation between the college and the high school in planning the advanced courses.[23]

Variations of this plan are in effect elsewhere, through which college credit may be given for work of college grade already completed in the high school. We need the means whereby the bright pupil may economize time; but we need also (even more) the means whereby he may reach out into fields untouched by the average child—explore, analyze, create as his capacity prompts him to do, and at all times secure a rich variety of contacts and experiences.

3. COST OF SPECIAL EDUCATION

Little as we know of the curriculum that should be given to the mentally exceptional child, we probably know even less of what it should cost to educate either him or his physically handicapped fellow. We know what it *does* cost in numerous places, but we also know how wide the variation is from one city to another. Little can be done in this direction save to point to these wide variations and again to the need of research looking toward the better standardization of expenditures. When we find that the cost of educating the blind or partially seeing varies from a little over $100 in one city to almost $450 in another; that for the deaf the range is from $135 to almost $500; that classes for the subnormal cost from $70 to over $300, we are faced with the necessity, first of all, of formulating a uniform standard for computing costs, in order that the data obtained from various localities may be truly comparable; second, of studying equipment, transportation, and housing expenses in order that we may arrive at some adequate basis for estimating a fair expenditure for each type of deviate. Even then variations will arise in different parts of the country, and in urban and rural situations; yet we shall have at least an approximation which can be used as a guide.

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[23] Robertson, David A. Cooperation Between Goucher College and the High Schools of Baltimore. School and Society, 33 : 875. December, 1930.

IV. COUNTY PROVISIONS FOR THE EDUCATION OF EXCEPTIONAL CHILDREN[24]

The title given to this section is a hope rather than a reality. Organized provisions made for exceptional children on a county basis are conspicuously absent. A communication sent by the United States Office of Education to every county superintendent in the United States elicited some 40 or 50 responses, and most of these indicated that little or nothing was being done in giving the handicapped child the educational opportunity which he needs. This fact amply justifies the statement that was made in the preceding pages that rural areas are the State's peculiar responsibility. The county needs the encouragement, the stimulation, the support, the supervision, the aid which the State can give either directly or through county representatives. A county supervisor of elementary schools has a great opportunity if she is prepared to take it. But too often she is hampered by manifold responsibilities and lack of special training. The State program of New York, as has been described, takes care of the physically handicapped children in the rural areas on an individual basis. Yet even here a county organization is needed as an intermediary between district and State, in order that children needing help may be located more quickly, aid be administered more effectively, and follow-up work be carried on locally. A few other States have succeeded in bringing the special class to the small community or have made it a county-wide undertaking. On the whole, such classes are as yet restricted to the physically handicapped, and even here the field is wide open for development.

Some small beginnings have been made which, because they are pioneer efforts, are worthy of mention. In the future, when county facilities have expanded to the same extent which has now been realized in the cities, we shall look back at these early projects with the interest of the historian who traces the beginnings of things.

From "The Monthly Letter" of the International Society for Crippled Children (October, 1930) we quote as follows:

> A special class for crippled children was inaugurated in the Sebring, Ohio, public schools with the beginning of the present school year. To our knowledge, this is the smallest community in the world[25] to have made available through its public schools, special instruction to its crippled children. The superintendent of schools of Sebring had the hearty cooperation of the local Rotary Club through its crippled-children committee; in fact, the entire community was interested in the venture.
>
> The State department of education, through its director of special classes, Mrs. Hazel C. McIntire; and the assistant director, Mrs. Margaret Shively, gave invaluable aid in assisting in the organization of this class.

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[24] This section includes also a consideration of the work being done in towns and districts of those States which have no county organization.

[25] Sebring has a population of 3,949, according to the 1930 census.

In the past it has been relatively easy to interest larger communities in special schools for its physically handicapped, but with more recent developments in special classes for crippled children in very small communities such as Barnesville, Ohio, and Marion, Ill., the value of the work in small communities can be seen. Why can not all rural communities be benefited by these educational facilities for their handicapped youth?

The school referred to in the foregoing quotation as located in Barnesville is a project of Belmont County, Ohio. Here, through the cooperation of the county health commissioner, the county juvenile judge, the county auditor, the county superintendent of schools, and the Rotary Club with the State department, all the cripples of the county are being gradually contacted. For four years a county-wide school has been maintained at Barnesville and has cared for as many as 26 children who are under the care of two teachers. These children are brought to town from 13 communities well scattered over the county and are placed in boarding homes from Monday until Friday night. The special class provided for them affords regular academic work through the eighth grade. The school at Barnesville has been particularly successful in carrying on the work of the individual child by means of a modification of the so-called Dalton or laboratory method of progress. Children are permitted to advance in the several subjects at their own rate, the work being divided into units. There are numerous group conferences, so that some grade distinction is still maintained and some interpupil competition possible. It has been found that this method works particularly well with handicapped children who come from different communities and who have reached various degrees of scholastic advancement.[26]

A few States report isolated instances of county supervision. Monmouth County, N. J., for example, has a "supervisor of child study," appointed by the State department of education, as the field worker of the county. Her work consists of individual study of pupils who are mentally deficient or who are behavior problems in the schools, and through her efforts a number of special classes for retarded children have been established, the supervision of which is part of her duty. Her activities are concerned with all types of schools within the county, but the organization of special classes is restricted to the boroughs and the cities. Hence the work in the rural schools of the county thus far consists largely of an individual contact of advisory nature with the teachers of exceptional children. Even this, however, is invaluable to the rural teacher who has had no special training for this type of work, and it constitutes a stepping stone to the organization of better facilities.

[26] Data taken from a report submitted to the White House Conference.



Courtesy of John R. Killius

A Game of Bean Bag on the Sun Roof Court

In Johnstown, Pa., a hospital for crippled children provides facilities for both physical and educational development. Medical care, recreation, and school work are all a part of the day's program.

Massachusetts reports a number of small towns each of which has a single special class. Iowa reports an ungraded class maintained in one of its consolidated schools. From Michigan comes the word that "for the most part special education programs are limited to communities of five or ten thousand people or larger." Minnesota confesses that "the (rural) problem still remains unanswered as far as this State is concerned."

These States are among those which have displayed the greatest interest and have made the most progress in the field of special education throughout the entire country. If facilities in the rural areas are so limited there, what can we expect of those States in which little or no State provision has been made even for city organization of special classes? Surely there must be developed some means whereby adequate *State* support and supervision shall encourage, stimulate, and promote adequate *county* supervision, which in turn shall organize the county facilities for special education and bring to the *individual teacher* the assistance which she needs in helping the individual child.

V. PREPARATION OF TEACHERS

Practically every State in which there is a bureau of special education actively at work has taken cognizance of the fact that the successful teaching of exceptional children demands special qualifications, including a specific type of training for respective groups. The teacher of the deaf or deafened child needs preparation for teaching lip reading and for teaching speech to the deaf. The teacher of the mentally deficient needs a background that stresses the nature and needs of subnormality. Each group has its own peculiar characteristics which must be the subject of careful psychological study and which require a special methodology. It is not surprising, therefore, that recent developments show a definite progress in setting up qualifications for the teaching of special groups of children, and that such steps have been taken primarily in those States in which special education itself has progressed the farthest and where the need, therefore, has most distinctly been felt. Pennsylvania, for example, requires professional preparation which shall be the equivalent of 20 semester hours, recognizing both technical training and experience in the chosen field as contributory to the satisfaction of the requirement. Massachusetts, Michigan, Minnesota, Missouri, New York, and Wisconsin have set up qualifications which are similarly specific, varying only in the amount of work stipulated. In all these States the tendency is to demand a preparation of teachers which shall be to some degree commensurate with

the task to be undertaken. In numerous other States requirements are still vague and unformulated. All too frequently teachers are assigned to teach mentally deficient children who have had little or no preparation for the work. The preliminary report of the Committee on Special Classes of the White House Conference calls attention to the fact that—

> Of the teachers preparing to teach mentally deficient children, five-eighths have *six weeks or less* of training, and three-eighths have had 18 weeks or more; the majority of the teachers of the orally defective are being given one year of special training, and by far the larger proportion of these are being trained in private schools or in State residential schools for the deaf. Most of the training of teachers of children with defective vision is being done in various colleges and universities, under the auspices of the National Society for the Prevention of Blindness, in intensive six weeks' courses during summer session.

These statements bring us to another aspect of the problem, namely, the provision of teacher preparation facilities. If the teachers of special classes are expected to have special qualifications and training, then there must be institutions provided to give that training. Until very recently the opportunities for specialized study in the field were extremely few, and even yet we need to search for those higher institutions which offer a comprehensive course designed to prepare the student for special class work. The report referred to above states further: "Including all institutions granting certificates to special class teachers during the past 5 years, there have been trained an average yearly total of 189 teachers for the mentally deficient, 81 for the auditorially defective, 44 for the visually defective, 16 for speech defectives, and 16 for orthopedic classes." When one compares these figures with the estimates of incidence given at the beginning of this chapter, or even with the figures of actual enrollment in special classes, one must inevitably cry out: What are these among so many! Yet again we sound the note of progress, for the need is being recognized and met by a gradually increasing number of colleges and universities.

A questionnaire was recently sent out by the Office of Education to every teacher-preparing institution in the country, asking for information as to specialized courses offered in any one of the fields of special education. Of the total number of 737 to which the questionnaire was sent, 549 responded. Of these, 61 stated that they included among their objectives the special preparation of teachers of one or more types of exceptional children. In a large number of these 61 institutions, however, the "special preparation" listed consists of a few courses given in psychology and measurement which are applicable equally to normal and atypical children. Most of the others limit their special field of preparation to one or another type

of abnormality—a practice which wisely encourages adequate training for one group rather than superficial training for all. The number in which there is even an approach to a comprehensive program that shall involve all types is exceedingly small.

Teachers' colleges are making strides in the field which outstrip most of the universities. This is perhaps to be expected since the teaching of exceptional children has hitherto been confined almost exclusively to the elementary grades. Of recent occurrence is the naming (by the State board of education) of Milwaukee State Teachers College in Wisconsin, and of San Francisco State Teachers College, in California, as the official training centers in the respective States. The programs now being put into operation in these two schools will add materially to the limited facilities now available in either college or university, in the offering of which Massachusetts, Michigan, Minnesota, Pennsylvania. New York, and Ohio have taken the lead.

An additional source of preparation of teachers of exceptional children comes from such specialized schools as the Training School at Vineland, N. J.; the Columbia Institution for the Deaf, in Washington, D. C.; the Perkins Institution for the Blind, in Watertown, Mass. These and other State, local, or private schools of similar specialized character offer fertile ground for the best type of practical work which, linked with the broader educational preparation of the college or university, constitutes an invaluable part of the total training of the prospective teacher.

VI. MENTAL HYGIENE FACILITIES

Stevenson estimates that in 1921 there were available in mental hygiene clinics in this country about two hundred hours per week of psychiatric time for the study and the treatment of children's problems, increasing to about sixteen hundred hours in 1928, and reaching perhaps two thousand hours this year. Prior to 1921, there were very few mental hygiene clinics restricting work to children—the outstanding ones being the Institute for Juvenile Research in Chicago (1909) and the Judge Baker Foundation in Boston (1917). Certain hospitals—notably the Michigan State Psychopathic Hospital (1906), the Boston Psychopathic Hospital (1912), and the Henry Phipps Psychiatric Clinic at the Johns Hopkins Hospital (1913)—maintained active out-patient clinics, where, as well as in the wards, children were examined and treated. Massachusetts and New York had adopted a system of clinics, especially for adult after-care, operated by the various State hospitals. An occasional court, such as the Children's Court of New York City (1917), had a clinic.

In 1921–22, the great wave of development seems to have begun. In that year, Thom started his habit clinics in Boston; the Commonwealth fund embarked on its 5-year program for the prevention of delinquency; many new clinics were opened; mobile clinics were developed; and the phrase "child guidance clinic" was coined to cover the activities of a special type of clinic. Subsequent developments have been tremendous, and by 1928 there were 451

clinics giving psychiatric service to children (estimated to be six hundred this year). One hundred and six of these clinics were child guidance clinics, one-half of them being small, one fourth medium, and one fourth full-time.[27]

The above excerpt, taken from an article by one of the leading psychiatric specialists in child guidance, summarizes admirably what the development has been in the service rendered by mental hygiene and child guidance clinics. So intimately are these related to the welfare and the education of the exceptional child that their contributions constitute one of the most outstanding features of the whole history of special education. The function of mental hygiene has been expressed as "the creation of the best possible conditions for permitting each person to adjust himself adequately to his surroundings, to the limit of his potentialities, in order to prevent as far as possible the gross maladjustments of personality that lead to insanity, dependency, and crime."[28] Obviously the child who bears the burden of a serious physical or mental handicap has a real problem to face in life adjustment, and he needs, therefore, understanding guidance in bringing about the necessary compensatory reactions. The organization of special classes, the administrative adjustments made to secure adequate provision for them, the revision of curricula to meet the conditions of the pupils enrolled, the careful selection of teachers—all these are parts of a great mental hygiene program designed to lessen the evils of unhappy, discontented, maladjusted childhood. But mental hygiene goes beyond provision made for *groups* to the intensive study of, and provision for, the *individual within the group.* Herein lies the value of and the necessity for the case study of the mental hygiene clinic, which ferrets out contributing factors and secures a picture of the whole child in his physical, his mental, and his social relationships; which also forms the basis for concrete constructive recommendations for treatment given by the expert psychologist and psychiatrist. Whether physically or mentally handicapped, whether possessed of an unfortunate behavior tendency, or whether belonging to the neurotic or psychotic type, the school child of to-day who needs special help in approximating normal social adjustment finds the open door through the rapidly growing number of school and community agencies which provide clinical facilities for the promotion of mental health.

By far the most effective type of clinical organization is that which provides for a close coordination of all available resources.

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[27] Lowry, Lawson G. Clinical Facilities for the Study of Personality and Behavior Problems in Children. The Annals of the American Academy of Political and Social Science, 151: 138, September, 1930.

[28] Cornell, Ethel L. Mental Hygiene: Its Place in the Classroom. Albany, N. Y., the University of the State of New York Press, 1927, p. 4.

The mental hygiene clinic at its best can not exist apart from the school, nor apart from the community agencies dealing with health and protection. Even though it be privately endowed as a separate institution, the ramifications of its contacts must involve every possible influence that touches the child. The outstanding work done by Healy and Bronner under the Judge Baker Foundation, the clinics established under the Commonwealth fund, the visiting teacher movement, and other intensive clinical activities all amply demonstrate this fact. And if the clinic is established as an integral part of the school system, as in Minneapolis and Newark, there is of course every opportunity for a close relationship between teacher and clinical specialist.

This coordination of effort should reach out into every aspect of community life. Juvenile delinquency as it comes to the attention of the police department, social indigency as it is known to the welfare agencies, health and sanitation problems as they are considered by the health department, difficulties inherent in providing for an adequate recreational program, finally the educational requirements of the community—these can not be conceived as segregated entities in the civic organization, each working in its own little compartment. They represent closely interwoven aspects of what should be a well-coordinated, deeply cooperative program of social betterment. The mental hygiene or child guidance clinic must use every agency which the city or county affords and it in turn must be ready to be used by each one of them. Not until all have been welded into one great harmonious whole, each member of which is ready either to assume responsibility or to see it delegated to another, yet all working concretely toward the same end, can we expect an adequate attack to be made on the problems at hand, which will avoid duplication of effort and achieve the power of a united front.

The principles of such a cooperative plan, while long accepted in theory, have only begun to be put into practice. A concrete example is found in the recent organization which has been effected in Berkeley, Calif., where a "coordinating council" meets in weekly session and discusses the problems presented to it by one or another of its members. The membership of the council consists of representatives of various civic agencies, including the police department, the health department, the welfare society, the school department, and the recreation board. The cases of individual children are considered for adjustment, and the responsibility for carrying into effect the recommendations of the council is placed upon the proper agency or agencies. Closely affiliated with the activities of the council is the "behavior clinic," manned by a psychiatrist, psychologist, physician, and social workers, who stand ready to serve through an intensive

study and treatment of any problem child referred to it either by the coordinating council or through other channels. Closely affiliated also with both the coordinating council and the behavior clinic is the whole guidance program of the public schools, one of the functions of which is to discover incipient maladjustments in behavior, in order that preventive measures may be applied while habits are still plastic.

Such a set-up amalgamates school and community forces to a degree that is otherwise impossible. Other cities in the country are working toward the same end. The plan grows more complex in its operation as a city increases in size. Yet there seems to be no reason why it should not be adjusted to conditions even in the largest cities, provided a real desire to cooperate and a true spirit of service are present in the group responsible for its realization.

The development of the whole mental hygiene movement in the United States dates back only to 1908. Its phenomenal growth, in which schools, communities, and custodial institutions have shared, is attested not only by the tremendous increase of clinical facilities, but also by the occurrence in 1930 of the First International Congress on Mental Hygiene, which in itself is a landmark of achievement. The fact that representatives of over 40 countries participated in the deliberations of that Congress demonstrates the world-wide influence which the movement has had, and it is likewise an index of the stimulus which we may expect it to exert in our public schools in the years ahead of us. Its insistent emphasis is upon the child as a total dynamic individual, no one phase separable from the others for isolated study, but each reacting and interacting in such a way that an understanding of his problems and his needs is totally impossible without a consideration of the interplay of all forces underlying them. The time has passed when we can think of the pupil at school apart from the child at home, or when we can study his physical symptoms apart from his mental reactions. He is a living, growing, developing personality, and unless in our adjustment work we consider the *whole* of him we are in danger of helping *none* of him.

This method of dealing with the total personality in a total situation is the one which is being utilized by every type of clinic under whatever diverse auspices it may be working. So close has been its relationship to the school that teachers are beginning to be "mental health conscious," and are seeking help in the application of its principles with all children in the classroom. A few scattered colleges and universities are offering courses in the mental hygiene of the school child. In those communities where clinics are actively at work in the school system, teachers are frequently

called into conference to discuss with the specialists the problem of the particular child under consideration. The importance of familiarizing the classroom teacher with the principles of mental health, of teaching her to recognize the early symptoms of maladjustment, and of helping her to build positively for a well-integrated personality in the growing child is rapidly becoming a recognized factor in our teacher-preparation program. It involves active in-service training as well as a preliminary approach to the problem during the period of preparation. Significant in this connection is the step which has just been taken in Massachusetts. The Massachusetts Society for Mental Hygiene issued in January, 1931, the first number of Understanding the Child, a magazine on mental health designed primarily for teachers of the State. Through its columns it is proposed to bring into the classroom a clearer insight into the developing personality of the child and into the methods of helping it grow aright. Such a magazine should prove of tremendous value in promoting a sane mental health program in the schools that will emphasize its preventive aspects and its wholesome influence for all children.

VII. A FORWARD LOOK

Throughout the writing of these pages there have been mingled the feeling of gratification for small achievements that have been realized and the conviction that there is ahead of us an era of challenging research in attacking the problems that have as yet been almost untouched—an era of aggressive service, too, in pushing to the foreground of educational consciousness the insistent need of more adequate provision for the exceptional child. One of the essential marks of progress is the reaching out after *more* progress. The culmination of the program, even in its barest outlines, will come only when every State of the Union has squarely met its responsibility for adequate education of the handicapped child through some type of legislative aid. Upon such a foundation can be built a State structure that will be economically as well as sociologically a potential asset of greatest value.

Yet in the building of the structure there are—and there will always be—questions that must be answered and problems that must be solved. The research student has here a rich field from which to draw. If in the graduate schools of education throughout the country and among the organizations interested in exceptional children there could be developed a great, coordinated program of research, subject to all the demands of scientific procedure, what a wealth of information might accrue to the interests of special education. The United States Office of Education is taking steps at the present time to find out what research studies are actually under

way pertaining to the education of exceptional children, and it is hoped that this may be the beginning of an enterprise which shall draw into the field the keenest thinking of interested students in various parts of the country. One of the recommendations of the White House Conference is to the effect that there be made a nation-wide survey of special education. The State superintendents and commissioners of education, meeting in Milwaukee in December, 1930, passed a resolution making the same request. If that recommendation is followed, all the scientific data that are available will be needed as a preliminary phase or as an integral part of the complete survey.

The problems before us are legion. We are listing below a few of those which are challenging our attention. The list could be doubled or tripled were all the issues to be included. Yet these will be suggestive of the program that is ahead of us. All of them are a direct outcome of present practice and experimentation in the field of special education. As yet personal opinion and philosophy have furnished the guiding principles used in meeting most of them. Can we—if so, how shall we—arrive at scientific conclusions which may supplement theory?

1. How can a census of the various types of exceptional children be most efficiently and economically handled?
2. Should special classes be scattered throughout the city, housed in the regular school buildings; or should they be centralized in a separate school building?
3. Should all types of handicapped children be housed together in the same centralized school?
4. What are the best means of gathering data for all types of exceptional children? What data should be gathered?
5. How can the nomenclature used for special classes be better standardized?
6. What factors should contribute to the class placement of mentally border-line cases?
7. How can the work of a special class for disciplinary cases be evaluated?
8. What types of State organization for the administration of special education are most effective?
9. What is the most effective county (or town) organization for the administration of special education?
10. What is the most desirable form of State aid for special classes?
11. How can rural communities be most effectively reached in providing facilities for exceptional children?

12. What should be the relationship between State institutions and city day schools for various types of exceptional children? In what way can the cooperation between them be most effectively realized?

13. What should it cost to educate each type of exceptional child?

14. What provisions should be made for exceptional children on the secondary school level?

15. What should be the curriculum content for mentally deficient children? For gifted children?

16. For which occupations should we educate the mentally deficient? The deaf? The partially sighted?

17. How does the guidance problem for exceptional children differ from that of normal children? What special techniques may be used?

18. What follow-up and placement responsibilities should the school assume for handicapped children?

19. What do the after-school histories of exceptional children show as to their development and the value of the training which they have received in special classes?

20. What is the place of the psychological clinic in the school system? How can its work be evaluated?

21. What means can be used to effect a close coordination of school and community agencies in handling the exceptional child?

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CHAPTER XII

ADULT EDUCATION

I. PUBLIC EDUCATION OF ADULTS

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Contents.—I. Public education of adults: Movement during decade 1920–1930—Elementary education for adults under public-school auspices—Rehabilitation work pays—Work done by States—University extension—Alumni education—Conclusion. III. Parent education: Growth and significance of movement—Organizations conducting parent education projects.

MOVEMENT DURING DECADE 1920–1930

Adult education is the newest step in the movement for the popularization of education.

The term "adult education" came into our vocabulary about a decade ago. Prior to 1917 this term was scarcely ever used. It may be said that the term grew out of the Americanization movement during the World War. At that time, in many States, councils of defense assisted public-school officials in promoting classes for non-English speaking residents. This was known as the Americanization movement. To these classes of men and women who were being taught, among other things, to read and write English, came many native-born Americans. The term "Americanization" clearly did not fit the situation, and a new term had to be selected. Inasmuch as the foreign born and the native born attending these classes were adults, the term "adult education" was adopted. This term has been very common in England for half a century.

"Adult education" has the effect of a powerful slogan. It is a challenge to all adults to carry on their education. It is probable, however, that had the term "adult education" not been selected as a substitute for "Americanization," the movement for the education of adults would have started anyway. It was the next logical step in the growth of American education, as any scheme of education that limited schooling to youth was bound to give way

to the idea that education is a lifelong process in man's attempt to adjust himself to his environment.

Although the school's part in adult education is new, the education of adults through participation in public affairs is not new in this country. The building of a government based upon the will of the people in a new country, with a population from the various countries of the world, enforced education of adults. Town meetings, political conventions, religious gatherings, lyceums, chautauquas, forums, debating organizations, literary clubs, fraternal organizations, conferences, cooperative organizations, and clubs in general, the number of which has never been counted, have served as schools for educating adults. The name "adult education" is new, the belief that the adult retains his learning ability is new, and there is a new consciousness that adults must continue to learn if they are to function properly. There is also a new concept that education for adults should be more than casual; it should be organized and have some continuity, and it should bring to the individual the experience of others in his field of study. Environment to-day in America is so different from the environment even 20 years ago and is changing so rapidly that constant reeducation is necessary.

The adult education movement which emphasizes the carry-over value of education is beginning to have a powerful effect upon all types of schools. The Archbishop of York, before the British Institute of Adult Education, made the following statement:

> Adult education must be the center of the whole educational system, the goal to which all its parts converge. At present it is largely regarded as a by-product. We give our main thought and care to the education of the young, to the origins rather than the ends of education. All education, elementary, secondary, university, must be held together by one question dominant at every stage: "How can the largest number of adult citizens become and continue to be educated men and women?"

In a recent address, President Hoover said—

> Leadership can not, no matter how brilliant, carry progress far ahead of the average of the mass of individual units. Progress of the Nation is the sum of progress in its individuals. To insure this universal fitness for responsibility, it is prophesied that "the next battle in the campaign of democracy is going to rage around the possibility and advisability of general education for the majority of grown-ups, just as the battle of the last century has been about the possibility and advisability of general schooling for all the young."

A pertinent question in the consideration of the public school's part in adult education is "What are the educational needs of the American people?" It is unfortunate that we do not have an accurate picture of this situation; however, we do have some facts that throw light upon the question. Recently the vocational re-

habilitation division of the Federal Board for Vocational Education, which keeps a record of the previous education claimed by individuals who apply for training, reported that 3 per cent of the applicants had not completed the first grade and that 20 per cent had completed from the first to the sixth grades. As this training work is carried on in 44 States, the facts given are representative of the whole country. If we assume that persons having not more than a third-grade education are near illiterates, about 13 per cent of the applicants would be classed as near illiterates. The application of 13 per cent to the total number of persons 10 years of age and over in the United States at the present time would indicate that more than 12,000,000 people are near illiterates. The standard of literacy required for voting in the State of New York is fifth-grade ability. Inasmuch as the voter determines public policies, the practical question is, "How many people can read well enough so that they can read literature pertaining to public questions?"

The Army in 1917 found that more than one-fourth of the men examined could not read a newspaper nor write a letter. The United States Bureau of the Census in 1910 reported that 7.7 per cent of the people over 10 years of age could not write. The census report revealed also that illiteracy was much higher in the average groups than in the draft-age groups. The lack of harmony between the census figures and the results of the Army test probably indicate a very large number of near illiterates.

"Reading is a very complicated process," says Dr. Charles H. Judd, of the University of Chicago. If one is not able to read well enough to derive pleasure from reading, he is likely to read so little that he will forget how to read.

An estimate made by a student of educational statistics for the year 1924 showed the following percentage of distribution of 69,000,000 persons 21 years of age and over according to extent of education: Illiterate, 7.10; some elementary work, 34; completed elementary grades, 27.13; some high-school work, 18.86; high-school graduates only, 6.22; some college work, 4.55; college graduates, 2.14.

The situation has improved since 1924, but any study made of the needs of the American people probably would show that there are as many adults who need what the elementary schools have to offer as there are children now in the elementary schools.

The recent White House Conference on Child Health and Protection may be said to have summarized its work in "The Children's Charter" which reveals, under 19 headings, the responsibility of parents and the community for the welfare of children. This children's charter may be taken as a working program of adult education in so far as the education of adults is necessary for the

care and training of children. In a vital way all adult education may be motivated by a program for making the home and the community effective agencies for the rearing and training of children and youths. The study made by the above conference brings to one's mind in a forcible way the great importance of the education of parents. It is pathetic that many parents can not read the helpful literature on child care that is now available. The elementary education of all parents is a paramount necessity for any national program for child betterment.

A decade ago many educators acted upon the theory that learning ability ran out at about the age of 22 years; therefore it was necessary to put into the schools all those things that might be needed in later life. In 1927 and 1928 Dr. Edward L. Thorndike and other psychologists made a thorough-going study and reported, in part, as follows:

> In general, nobody under 45 should restrain himself from trying to learn anything because of a belief or fear that he is too old to be able to learn it. Nor should he use that fear as an excuse for not learning anything which he ought to learn. If he fails in learning it, inability due directly to age will very rarely, if ever, be the reason. The reason will commonly be one or more of these: He lacks and always has lacked the capacity to learn that particular thing. His desire to learn it is not strong enough to cause him to give proper attention to it. The ways and means which he adopts are inadequate, and would have been so at any age, to teach him that thing. He has habits, or ideas, or other tendencies which interfere with the new acquisition and which he is unable or unwilling to alter. In the last case, mere age may have some influence. A person's gait, posture, speech, and the like are acquired very early in life. They condition later acquisitions, and they may to some extent impose inescapable limitations.
>
> On the whole, the facts of adult learning are a strong support to those who have given time, and thought, and money to adult education.

This study of Doctor Thorndike and others is causing some school administrators to make over their courses of study in line with the theory that the ability to learn lasts as long as life itself and that a primary objective of the school is so to strengthen the student's desire to know that he will be a lifelong student. Greater effort also is being made to encourage the student to become a resourceful searcher for truths and a good individual worker as well as one who can cooperate with his fellows in a community project.

The new emphasis on adult education is causing school administrators to consider more seriously the effect of subject matter and school procedures on the whole life of the student. This is most noticeable in colleges inasmuch as these institutions are giving more consideration to the effectiveness of the education of their graduates. Alumni groups are asking such questions as: (1) To what extent do the results of the lecture method of instruction carry over? (2)

To what extent does the seeming interest in a subject which is based upon credits to be earned by its study carry over? (3) Why do so many college graduates show no desire for further study? It is well known that college sports, as a rule, are of such a nature that they are not practiced after graduation; for example, football is far too strenuous for adults. There is a growing interest in those sports that do have a carry-over nature, such as golf, tennis, hand ball, medicine ball, volley ball, and hikes.

Two organizations have come into being in the past seven years which are wholly concerned with adult education. The first was organized in 1924 by the men and women who were the leaders in Americanization schools. They saw that their work was wholly in the field of adult education and organized the department of adult education of the National Education Association. This organization has its regular meetings with the National Education Association and usually has called meetings at the time of the meeting of the department of superintendence of the National Education Association. The organization prints a journal known as *Adult Education*, which is of interest to teachers and supervisors of adult classes. The organization has made the following statement of its principles:

1. Any nation, whose life and destiny depend upon popular participation in government, can not afford to tolerate less than a full-functioning literacy. This in the United States means ability on the part of the electorate to read simple English understandingly as a minimum requirement, and requires adequate educational facilities.

2. It is as important for every community to provide educational opportunities for legally employed minors and for adults whose earlier educational opportunities have been restricted, as for the more fortunate who are able to take advantage of public day educational facilities.

3. In view of considerations of social policy and national welfare, the United States, having encouraged and permitted people of foreign birth to come and remain as prospective citizens, owes to itself and to them educational facilities appropriate to and commensurate with their personal and civic needs.

4. Not age, but "the equalization of educational opportunity," is the determining factor in prescribing educational service to be offered under public auspices.

5. Adults undertake and pursue education volitionally when they consider it worth their time and effort. Public educational policies and programs should be adopted and educational opportunities provided on the basis of discovered adult human needs and desires. Public educational administrators should seek to discover what adults wish to learn.

6. Political needs in the United States require a system of continuous education throughout adult life to insure the preservation and development of our democratic institutions.

7. Rapidly changing social and economic conditions require the development of a system of continuous education which will enable adults to adjust themselves to their changing environment.

8. Increased wealth and leisure resulting from increased productivity of the modern industrial system demand greater opportunities for the expression of personality, the appreciation of spiritual values in living, and the attainment of higher cultural interests.

In 1930 the department of adult education of the National Education Association selected the officers of the National Commission on the Enrichment of Adult Life. The main objective of this commission is to encourage the wiser use of leisure time. Dr. James A. Moyer, of the State Department of Education of Massachusetts, was elected president of the commission. The national membership of this commission was appointed by the president of the National Education Association, and State commissions have been appointed in many States.

The second organization was the American Association for Adult Education which was organized in 1926 after regional meetings had been held in various places. The purpose of this organization is to coordinate activities in adult education and to act as a clearing house for those interested in this field. It gathers and disseminates information on many phases of adult education and publishes the *Journal of Adult Education* which is issued quarterly. It has sponsored a number of national studies such as: Urban Influences on Higher Education in England and the United States, by Park R. Kolbe; Adult Learning, by Edward L. Thorndike and others; Educational Opportunities for Young Workers, by Owen D. Evans; The University Afield, by Alfred L. Hall-Quest; Correspondence Schools, Lyceums, Chautauquas, by John S. Noffsinger; New Schools for Older Students, by Nathaniel Peffer; Libraries and Adult Education, by the American Library Association; The Reading Interests and Habits of Adults, by William S. Gray and Ruth Monroe; Adult Education in a Community by C. S. Marsh; A Preliminary Inquiry into Rural Adult Education, by John D. Willard; Alumni and Adult Education, by Wilfred B. Shaw; "Unemployment and Adult Education"—A symposium.

The officers of the association are: James E. Russell, dean emeritus of Teachers College, Columbia University, president; Leon J. Richardson, director of the extension division, University of California, vice president; Margaret E. Burton, executive of the education and research division of the National Board of the Young Women's Christian Association, secretary; John H. Puelicher, chairman of the committee on education of the American Bankers' Association, treasurer; Morse A. Cartwright, director. The offices are at 60 East Forty-second Street, New York City.

For the sake of convenience, adult education activities usually are divided into two groups: (1) Those adult education activities that are tax supported; and (2) those adult educational activities that are

not tax supported. The American Association for Adult Education, in its various publications, is bringing to public attention those forms of adult education that are not tax supported. This report attempts to deal with adult education that is tax supported or partly tax supported.

ELEMENTARY EDUCATION FOR ADULTS UNDER PUBLIC-SCHOOL AUSPICES

It is estimated from incomplete figures now in the Office of Education for the period 1928–1930 that evening school attendance in both elementary and secondary schools exceeded 1,000,000. It is probable that about two-fifths of this number will be reported as having enrolled for elementary subjects. These figures, when completed, will not include enrollments for short terms as a result of special drives that were made in 1929 and 1930 so that the showing of the States in the matter of illiteracy would be improved.

When it is noted that there are nearly 4,000,000 boys and girls of high-school age not in school, the need of evening schools for these young people is apparent. The outstanding fact is that the evening school is not yet established as a regular part of the public-school system. A city which may be expending $150 of tax money for each boy and girl who can be spared from the home so as to attend day school and is expending $15 of tax money for the evening school pupil who must work in the daytime to help support the family will, when curtailment seems to be necessary, most likely restrict the evening rather than the day school program.

A careful study of any city will show that the evening school has a great work to do that the day schools can not do. Since always our greatest need is the development of our human resources, the evening school may well be a most potent agency for this purpose. The evening school may be the means of bringing our whole population into full step with civilization. To say that we have an oversupply of goods is only another way of saying that the development of human resources has not kept pace with the development of our material resources. Human resources can be developed mainly through education. The evening school should be considered by the community as an excellent opportunity to advance its material progress as well as a means of increasing human well-being. Studies that have been made show that the relative cost of the evening school is small, as buildings and equipment are already provided and as the evening school is open for only three evenings a week, and two hours each evening, for 24 weeks, or 144 hours in a year, whereas the day schools in most large cities are open for at least 1,080 hours a year.

Reports from the various State departments of education show that, as a general rule, no evening schools are held in cities with fewer than 10,000 people. With the exception of two or three States, no evening schools are reported in rural districts.

A study of evening school enrollments and attendance shows that large fees curtail enrollments but make for more regular attendance. One hundred and twenty of the 200 largest cities charge no fee; however, 86 of them require a deposit which is returned for good attendance, and 46 of them charge a fee which approximates the cost of instruction.

The important matter is that evening-school opportunity should be provided for larger numbers of people and in more communities. More important than the question of fee is the matter of good instruction.

As in most evening schools there are those who would attend the day school if it were not necessary for them to help support dependents, it seems very unfair for a city to give free instruction for those who are able to attend day schools and charge a fee for those who can not attend day schools and must, therefore, depend upon the evening school.

In all times of unemployment, the overage worker constitutes a problem of considerable magnitude. In filling positions few companies will consider applications from persons over 40 years of age. Two reasons have been given for this: (1) The overage worker is not adaptable; (2) the provision for retirement makes the older worker more expensive. So far as the first reason is concerned, it is now known that with proper training, the older worker can make suitable adaptations. As to the retirement provision, this is an arbitrary matter that can be adjusted by agreement between employers and workers.

Some industries, in making a study of this problem, find that older workers are more satisfactory than younger ones. It is reported that certain companies in New Jersey which distribute gasoline find that older men are better for their work than are younger men. A well-known automobile manufacturer claims that in many cases older workers are steadier and more efficient than younger workers.

Evening schools are helping older workers to adapt themselves for new lines of work and for new adjustments in old lines of work. In 1930, it is reported, 78,785 unskilled workers and 28,612 skilled workers applied to public employment offices for work. There is but little doubt that vocational guidance and training would increase the opportunity for employment of many of these 107,397 men and women.

REHABILITATION WORK PAYS

From a report of the Federal Board for Vocational Education we find that rehabilitation pays. The report says:

> It has been shown over and over again that it pays to invest State money in rehabilitation. It costs from $300 to $500 a year to maintain a person in a poorhouse, whereas it costs on the average, including all expenses, about $250 to vocationally rehabilitate a person.

The following statements analyzing accomplishments in several States for a 1-year period show the returns on public money expended for rehabilitation.

Increased wages.—In a Southern State in one fiscal year an analysis of the rehabilitation work showed that the average weekly wage at time of disablement of all persons rehabilitated in the year was $9.21, whereas after rehabilitation their wage was $21.75. Of the group rehabilitated, 77 per cent had no earning power during the period of disablement, while 30 per cent had never worked prior to rehabilitation. Again, the average weekly wage of those who were working at the time of disablement was $17.11, whereas, after rehabilitation the wage of this same group became $22.75. Furthermore, the average weekly wage of that group that had never worked until rehabilitated was $19.90.

Sound investment.—In a mid-Western State an analysis of the rehabilitation service for a period of five years showed the following:

Total number of disabled persons rehabilitated	1,036
Total gross annual earnings before rehabilitation	$499,208.09
Total gross annual earnings after rehabilitation	$1,159,948.18
Per capita annual earnings before rehabilitation	$481.85
Per capita annual earnings after rehabilitation	$1,119.64
Percentage of increase of earnings	232
Per capita cost of rehabilitation	$242.37

These figures show that rehabilitation pays. There no doubt are millions of people in the country who need rehabilitation, or rather habilitation, so that their work may be more skilled and more in line with their natural ability.

The evening schools now are used as a general habilitation agency. As yet, such schools are provided only in the larger cities, and most large cities appropriate relatively small sums for these schools. Educational and vocational guidance for evening-school students is becoming more common, and, as the counselors are being better trained, the work is becoming more and more effective.

WORK DONE BY STATES

This report is attempting to deal only with the States which may be considered typical or in which outstanding work in adult education is being done. Statistics as to attendance and expenditures

for public-school classes for adults in all of the States will be published soon in a bulletin giving statistics for school systems for 1929–30.

ALABAMA

Alabama, during the past two years, has had a teacher-training program for both white and colored teachers who expect to instruct adults. Instruction for adult illiterates for 120 hours has been made available in many counties of the State. While this program of elementary adult education has been under the supervision of the State department of education, the Alabama Federation of Women's Clubs, and the Alabama branch of the National Congress of Parents and Teachers have cooperated in most effective ways in making the plan successful.

For the past two summers six weeks of instruction have been given to all illiterate prisoners in the various institutions.

CALIFORNIA

California's leadership in the education of adults is due perhaps to two facts. The first is that the financial backing for an adult education program in that State is more ample than in other States for the reason that the school districts in California get large support from the State, and this support is based on the number of days of school attendance. Evening and day classes for adults are counted on a clock-hour basis as a part of the day-school attendance. This financial support makes possible a liberal program for adult education in all sections of the State. The other reason why California has been able to do notable work in adult education is that there has been aggressive, able leadership in the State department of education.

From the very beginning there has been a strong teacher-training program. The State University at Berkeley has offered a summer course for training for general adult education, and the State Teachers College at Fresno has offered a summer course for training of teachers of adults. Training courses in methods of teaching English to foreigners have been provided during both semesters at the University of California at Berkeley and during the summer at the University of California at Los Angeles, at the University of Southern California, Los Angeles, in both semesters, and at the State Teachers Colleges at San Diego and Fresno.

The effort to combat illiteracy is carried on through the high-school districts of the State. Most of the illiterates are foreign born. There is a strong effort throughout the State to organize the work for advanced classes so that reading habits may be established.

As a rule classes for adults are formed without expense to the students although there are a few classes for which the student pays a nominal tuition fee.

In the large cities of the State there are accredited high schools where evening-school students may earn high-school diplomas. There is in the State an adult education council which is endeavoring to promote all phases of adult education with a great deal of attention paid to constructive conversation, and considerable emphasis is placed on those things which make for a wiser use of leisure time. The county libraries are centers for the promotion of adult education.

California uses the school system as a means of holding the population that is attracted to the State by the climate. The evening school is even more of a powerful factor in this regard than is the day school, as it is an excellent agency to bring together, for educational and recreational purposes, strangers with like tastes.

CONNECTICUT

In Connecticut, as in many other States, the Americanization work was started during the World War upon the recommendation of the State council of defense. For this work the State appropriates about $25,000 per year which is used to help in defraying the cost of supervision of adult classes. The State law requires that school districts provide for classes when 20 or more non-English-speaking adults signify their desire for instruction. The interest among the foreign born is such that the average attendance at such classes has grown even though immigration laws have greatly diminished the number of non-English-speaking persons coming into the State. The cooperation given to this work by mill owners and superintendents is outstanding. These men know by experience that inability to speak, read, and write English is a very serious handicap to the industry employing the foreign born.

A teacher-training program is conducted for teachers of adults at Yale University during the summer session. Many institutes and conferences also are held.

The significant facts related to the non-English-speaking adult classes may well be listed here:[1]

(*a*) They have become an accepted and integral part of the public-school curriculum and responsibility.

(*b*) They are recognized as requiring a technical and specialized type of instruction, requiring training and professional preparation.

(*c*) Personal contact is required to interest and enroll the majority of pupils uneducated in English.

[1] Quoted from a report of R. C. Deming, director, division of adult education, State board of education, Connecticut.

(*d*) There is a growing belief that there is no place for the uneducated and non-English-speaking worker in modern industry.

(*e*) A great appreciation of the immediate effects on children of the adult pupils.

(*f*) There is an increase in the number of women pupils and of aliens long resident here.

(*g*) The greatly increased efficiency in instruction has been largely responsible for the great increase in attendance.

(*h*) The success and increase in rural classes is due both to need for English and lack of counterattractions.

(*i*) This type of work attracts great interest from local, State, and civic organizations.

DELAWARE

The program of adult education in Delaware has attracted wide attention. A decade ago the adult education program consisted solely of evening schools for the foreign born in the city of Wilmington. Fewer than 1,000 were enrolled. By 1929 the adult education program had been extended to all parts of the State and 2,463 students were enrolled. More than one-half of these were native-born Delawareans.

In 1930 the total expenditure of State funds for adult educational activities amounted to $32,250. This represents 1 per cent of the State's entire appropriation for public education. With this amount combined with what could be procured from other agencies, Delaware has conducted an aggressive program which has provided educational advantages for her adult residents in all parts of the State. One feature of this program has been the effort to eliminate illiteracy, and, as a consequence, the number of illiterates has been reduced by 25.8 per cent since 1920. The number of aliens has been reduced, through naturalization, by about 12 per cent in the decade. The closest possible cooperation has prevailed among the Federal court, the naturalization officials, and the school officials.

The outstanding feature of the adult education work in Delaware has been the organization and conduct of adult classes in rural districts of the State. Delaware's experience in this work has brought out the following facts which should be valuable to the whole country: (1) Rural people will attend evening schools if given an opportunity and if allowed to choose the subjects which they are to study; (2) the tendency for rural people is first to select a vocational subject and then to select those subjects that are cultural; (3) attendance of adults at evening school makes for better attendance and more interest of their children in day school.

After the 1920 Federal census the State Department of Public Instruction of Delaware checked the returns on illiteracy carefully and by a trial found that much more usable information

could be had by taking their own census of the educational needs of adults. Effort was made to provide classes for every adult illiterate 55 years of age or younger; however, those older than 55 could attend if they desired. The median age of those who attended classes was 45 years. Mental tests were given in some cases, and no special effort was made to teach those of extremely low ability.

A very effective agency used in the Delaware program of adult education is an alumni association. This is composed of former evening-school students. The foreign born who have attended evening classes and have become naturalized citizens help to maintain this organization which assists in recruiting their countrymen for the evening schools.

Several features of Delaware's adult education program make it worthy of emulation by States which have not already well-organized plans for such work:

1. There is in the office of the State superintendent of public instruction a trained specialist in adult education.
2. State funds are available for the promotion of adult education.
3. All cooperating agencies are organized into a citizenship association so that there is a maximum of cooperative effort.

DISTRICT OF COLUMBIA

During the past 10 years the District of Columbia has conducted an intensive program in elementary adult education. The classes are open to all who may need elementary instruction. A few native-born Americans attend these classes but, for the most part, the enrollment is made up of the foreign born. A few men and women from the foreign embassies, well educated in their own languages, attend the classes.

There are two outstanding features of the work that at once attract attention. The first is that a school building has been set aside for the Americanization work. This building is an old public-school building almost in the very heart of the business district. In this building classes are held both day and evening, and the teachers are employed on a full-time basis. A club room with a good library has been installed. This club room is used constantly by the foreign born and has much to do with creating a spirit of cooperation among them which promotes interest in the school. Second, the students of this school have organized the Americanization School Association. This association is the best recruiting agency possible, as the members of the association meet their countrymen as soon as they arrive in the city and very soon bring them to the school where they are properly introduced to the teachers and

other pupils. This association publishes a very attractive monthly magazine which, for the most part, is written by the students and which is sent to all parts of the world. The magazine is a powerful factor in promoting the writing of good English by the students of the school.

The teacher-training program in connection with this work is noteworthy. A teacher who is employed for the work must have the qualifications as prescribed by the city board of examiners, and the regulations require that two courses must have been taken in Americanization work which includes methods of teaching the English language, cultural backgrounds, naturalization, and immigration laws. Training courses in the normal school of the city are provided. There is constant training for teachers in service by means of monthly meetings and special classes for all teachers, and by weekly meetings for the new teacher.

Special effort has been made to reach adult illiterates. Classes are held for them during both day and evening, and in many cases, instruction is given in homes. A bus is provided, and frequently women and children are brought to the school for instruction. Young children are cared for while the mothers study.

During the past 10 years, an effort has been made to follow up the work of all students until the habit of reading is established. It has been found that about three years' time is necessary to enable the student to read well enough so that he will read for pleasure and will establish the habit of reading.

The very closest cooperation among the courts which handle naturalization cases, the school, and the naturalization officers has been enjoyed.

Much time has been given during the past two years to training the students of the school for a wiser use of leisure time. The school, without expense to the District, has promoted the study of music appreciation. Information about desirable books is brought to the attention of the students and great care taken to see that the books are available.

Educational films are brought to the attention of the students; field trips are taken on holidays and Sundays. Groups are organized to visit exhibits, art galleries, and museums, and many social events are planned by the school. Attention of the students of the school is also called to other educational opportunities offered in the city.

Perhaps the most distinctive service received from the school by its students is that they acquire a strong feeling that they belong to and are an important part of the community.

LOUISIANA

In Louisiana, during 1929–30, a program was organized for the teaching of adult illiterates. State and other funds were used to the extent of nearly $300,000. The number of illiterates taught was 109,688. The campaign was under the direction of the parish superintendents throughout the State. The course of study provided for 24 lessons of one hour each. Classes also were organized in the various prisons. Effort is being made to continue this work so that functional literacy may be acquired.

MASSACHUSETTS

One of the outstanding features of the program for the education of adults in Massachusetts is the thoroughgoing teacher-training program. In that State, as elsewhere, most of the evening-school teachers are recruited from the day-school teaching force. However, before one can secure a position as an evening-school teacher he must take a minimum amount of training. These training courses are conducted in the State normal schools and in colleges.

Conferences are held in many places in the State for the purpose of acquainting the unemployed with educational opportunities which will lead to better and more permanent placement. There is marked interest in this program on the part of all concerned, and the program is already productive of genuine good.

The division of university extension of the State department of education serves as an effective coordinating agent for all educational institutions in the State. There is a noticeable movement in the State to bring about a wiser use of leisure time.

NEW YORK

New York State, according to the 1920 census, had more illiterates than any other State in the Union. These illiterates were nearly all foreign born. The State helps school districts to finance their classes and also provides supervision. The State department of education is charged with the administration of the law pertaining to literacy requirements for voting. Tests of literacy are printed and sent to all school districts. To pass these tests a standard of approximately fifth-grade ability is required. In 1927–28, 173,537 new voters took this test and 153,762 passed it. This requirement of literacy for voting has a strong tendency to induce the foreign born to attend evening school.

The neighborhood classes for foreign-speaking women are reaching in a most practical way women who otherwise would be strangers

in their own homes as their children learn the English language and American ways at school, and their husbands learn much in connection with their work. In 1927–28, more than 11,000 women attended such classes. Many of these classes were held in homes.

Since 1927 teachers of the foreign born have been required to take training in: (1) Methods of teaching English to foreign-born adults; (2) immigrant backgrounds; (3) American institutions and government. In 1928–29, more than 82,000 adults attended classes offering elementary subjects; 51,696 studied academic subjects above the elementary grades; 18,811 were enrolled in afternoon and evening classes for commercial subjects; 83,055 were in classes for industrial subjects; 17,484 were in home-making classes. All told, more than 200,000 adults took some work under public-school auspices.

PENNSYLVANIA

Adult education in the State of Pennsylvania is especially worthy of description, not only on account of the vigorous administration from the State department of education, but also because of the State law which specifies that whenever 20 or more residents above the age of 16 years make written application for instruction in any subject taught in the day schools, it shall be provided by the local board of school directors. For the maintenance of such classes, the law further provides for State aid equivalent to that afforded the day schools. This law has been in operation since 1925 and, in effect, is extending the public-school system in a very practicable way to the population of the State.

The effectiveness of the adult education program in Pennsylvania has been due mainly to the fact that the State authorities have insisted upon having trained teachers for the work. The teacher-training program has been conducted at Temple University in Philadelphia and at the University of Pittsburgh.

A notable feature of the adult education work in Pennsylvania is the program for home classes for non-English-speaking mothers. The enrollment in such classes for the year 1929–30 exceeded 6,000. The adult education program for this past year has brought instruction to 125,000 students.

Pennsylvania has led in the matter of organizing evening high schools where full credit is given for the work, comparable to that granted in the day high schools. Many students employed in the day time secure high-school diplomas within six years through attendance at these evening schools.

There has been much activity in parental education during the biennium just passed, and a coordinated program has been worked

out by the State Congress of Parents and Teachers and the State department of public instruction.

Pennsylvania has taken leadership also in the matter of prison education, all penitentiaries now having directors of education. This work is under the direction of the State department of welfare.

Adult education work in Pennsylvania is conducted under the name of extension education. The scope of this work includes English and citizenship for immigrants and native illiterates by means of public-school, factory, neighborhood, and home classes; evening elementary education; general evening high schools; standard evening high schools; university extension; and related activities. The present public-school enrollment in extension classes is approximately 6,000 in home classes for foreign-born mothers; 20,000 in public-school, factory, and neighborhood classes; 10,000 in evening elementary schools; and 100,000 in evening high schools.

To show the growth of this work in the past decade the following paragraph is quoted from a recent report from Pennsylvania:

> In 1920 evening schools were not recognized by State law and a relatively few thousands were enrolled. Certain cities of their own initiative had organized evening-school programs. Mandatory legislation was passed by the General Assembly of 1925 providing for the organization of classes in English and citizenship for immigrants and native illiterates, in any course of study taught in the day elementary or secondary schools of a school district, and in English and citizenship for adults whenever 20 or more residents, above the age of 16 years, make written application for such instruction. The same legislation made extension education an integral part of the State program of public instruction and provided for training and certification of all extension teachers, a minimum salary schedule, and State aid for all extension classes within the Commonwealth, ranging from 25 per cent of the minimum salary of teachers in the larger and wealthier school districts to 75 per cent of the minimum salary of teachers in the smaller and poorer rural districts.
>
> The total enrollment in all day junior and senior high schools of the Commonwealth is 350,000. During the past 10 years the enrollment of our evening high schools has grown from a relatively few thousands to more than 100,000.

SOUTH CAROLINA

The two unusual features of the South Carolina adult educational program are: (1) The lay-by schools which are held in the various districts at such a time in the spring and summer when the general farm work is slack; (2) the Opportunity School, which is a month's program held at Erskine College each summer. A description of this work, written shortly after a visit to this opportunity school, follows:

> Upon arriving at the campus we saw students from 16 to 60 years of age. We did not notice any difference between the appearance of these students and those we would expect to see at a summer school where large numbers of

teachers of various ages were in attendance; but, upon visiting the classrooms, we found that these students were studying the most elementary subjects and that they seemed to be exceedingly eager to acquire all information possible. Among the subjects studied were elementary reading, elementary arithmetic, first lessons in United States history, first lessons in civics, etiquette, and so on. We visited the dining room and were impressed by the cheerful murmur of conversation and the many explosions of laughter which punctuated it. We were greatly impressed with the fact that here was a college being used for the most elementary instruction. The beautiful grounds, library, and sympathetic teachers belong to these neglected ones for one precious month. The eagerness of these people to absorb all that the college had to offer was the outstanding impression which we received.

During the visit we saw games played, heard much singing, and attended the presentation of an amateur play. We marveled at the poise of the students. A group of young men sang for us, and, unless one knew the facts he would think that they were college boys.

About 20 women gave a "style show." At the school each woman had made two dresses which she wore, in turn, on the stage, announcing the cost of the material for each of the dresses. The material for the most expensive dress exhibited cost $1. This demonstration and the entire evening performance would have been a credit to college men and women.

The cost of this month at the opportunity school to each student was $20. Sheets, towels, etc., had to be furnished by the students. We were told that in some cases the owners of the mills had paid the expenses of their employees at the school. A mill owner informed the writer of this article that former students at the school had had a wholesome effect upon the conduct of many of the other employees of his mill and that he thought it a good investment to send a few students each year.

We came away from the opportunity school wonderfully impressed with what we had seen—the eagerness with which these people grasped every opportunity offered them; the appreciation they had for the beauty of the college campus, and for a month in which there was some leisure, some play, and with it all a dignity that brings self-respect. We could picture the influence of this month upon their lives and upon all with whom they came in contact for the months to follow.

The program for adult education in South Carolina has been in operation for the past 12 years, during which time 38,685 people have been instructed. Some of these have advanced as far as the sixth grade and above. The amount expended for this work was $486,598. This represents about $12 expended upon each of the adults taught during a period of 12 years. Many of these adults are parents of children, and a number of them had no education whatever before this adult education program was begun.

The table which follows shows something of the school activities for the year 1929–30 for white and colored students:

Statistical facts, Department of Adult Education, South Carolina, July 1, 1929, to July 1, 1930

Item	White	Negro	Total
Number of counties participating			43
Number of schools	632	1,225	1,857
Number of teachers	977	1,721	2,698
Total enrollment	17,236	37,800	55,036
Number under 21 years of age	7,891	9,884	17,775
Number over 21 years of age	9,345	27,916	37,261
Average attendance	[1] 11,698	[2] 27,161	38,859
Number perfect in attendance	3,154	8,611	11,765
Number first-grade pupils	4,648	17,354	22,002
Number second-grade pupils	2,190	7,416	9,606
Number third-grade pupils	2,795	6,738	9,533
Number fourth-grade pupils	2,901	3,967	6,868
Number fifth-grade and above	4,702	2,325	7,027
Number pupils taught to read	2,929	13,013	15,942
Number pupils taught to write	3,612	14,371	17,983

[1] 70 per cent.
[2] 71 per cent.

To assist in the expenses of this work, the various counties raised $23,074; the Rosenwald Fund appropriated $17,358.

As far as possible, all teachers of adults in South Carolina are given special instruction before they are permitted to teach classes of this nature. The teacher training is done at Winthrop College and at Columbia College.

The adult education work in South Carolina has been remarkable considering the very small amount of money available for this purpose.

OTHER STATES

In a number of States school officials have endeavored to find, at the time of taking the regular school census, the names and addresses of those who are in reality functionally illiterate. It has been found that this information is of much greater value than that procured by the Federal census. It also has been found that the expense of procuring these names and addresses is relatively small.

The States of Nebraska and Delaware, in connection with their school census, have gathered valuable information as to the educational needs of their adult population. The city of Tacoma, Wash., for a number of years has gathered such information at the time of the regular school census. It is evident that school administrators should have full information as to the educational needs of the community.

School officials are becoming more aware of the importance of the influence of parents upon the education of children. Wherever studies have been made it has been found that children of illiterate or poorly educated parents are greatly handicapped in their quest for an education. Growth in the parent-teacher work in this coun-

try shows most clearly that parents are vitally interested in bringing about better conditions for the rearing of children. Leaders of this movement claim that the most effective means of bringing about more wholesome conditions for children is to be found through the education of parents.

The education of adults is going on in all kinds of ways, and it is estimated that there probably are 4,000,000 grown-ups who are pursuing some kind of instruction which is so continuous and of such a nature that it may be classified as adult education. The number probably will increase manyfold as it becomes generally known that adults can learn and as courses that fit their needs become more numerous.

Adult education is having a powerful influence in bringing to the fore the importance, as educational agencies, of such organizations as public libraries and public museums.

It is regrettable that only 17 per cent of our rural population has access to a public library, while over 90 per cent of our city dwellers has such privilege.

Public museums are taking a larger place in public education, and it is very likely that such museums will be organized more as educational exhibits and will be even much more popular than they have been in the past.

UNIVERSITY EXTENSION

College and university extension work has grown very rapidly during the past 10 years. A report of a decade ago showed that 73 institutions of higher learning in the United States offered correspondence courses. In 1929 such work was given by 149 institutions. More significant than the increase in the actual number of institutions offering this work is the increase in scope of opportunities offered by the institutions.

Ten years ago extension work of the college and university consisted mainly in giving correspondence courses. Now a great variety of work is offered through extension methods, the most extensive of which is class work held off the campus. Among other types of extension service now available are: Instruction by radio; institutes, conferences, short courses; library service; public lectures; home-reading courses; visual education; service to parent-teacher and other clubs; community drama; promotion of debates.

In every State of the Union there is some educational institution that is doing some kind of extension work. More than 200 different subjects are offered by correspondence. Class work in almost any college subject may now be had in most localities where 10 or more people desire to study the same subject. This instruction by corre-

spondence or class work may be on secondary, college, or graduate level. The number of colleges and universities reporting to the Office of Education that they do extension work is 443. Probably one-half of a million people took extension work from these institutions during the past year.

A number of colleges and universities are now giving advice and help in the matter of reading courses, first in the selection of suitable text material and then by giving references to information contained in other texts and magazines. Many of the institutions are making their libraries available to large numbers of people off the campus.

In some cases institutions are using the radio as a means of bringing to the attention of the general public their offerings by extension methods. Some institutions are giving lectures by radio, which constitute a part of a course.

Extension courses as offered by the 443 institutions mentioned above are described in Office of Education Bulletin, 1930, No. 10, College and University Extension Helps in Adult Education, 1928–29, available from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The University of California, at Berkeley, for the past two summers has conducted a notable experiment in adult education. The students who take this work in adult education live in the same dormitory so that they may get the maximum amount of practice in developing the ability to lead discussion groups. Emerson says that conversation doubles our power; that in an effort to unfold our thought to a friend we make it clearer to ourselves and surround it with illustrations that help and delight us, that it may happen that each hears from the other a better wisdom than anyone else will ever hear from either.

Gerald Chittenden, in his article published in the North American Review, in March, 1929, says:

> We recognize that conversation is the vehicle of charm, and yet we never trust ourselves to talk. Observe, for example, how we entertain foreign visitors. We try to show them all of our toys at once. To be sure, we ask the most intelligent people we know to meet them, but, having done so, we give nobody a chance to perform. We serve dinner so late that it must be gobbled under the pressure of a later engagement, and then jump into something and go somewhere to see a play for which we arrive too late, or some people in whom we are not interested. We drive them rapidly over good roads, crowd them into an elevator and shoot them to the top of our tallest buildings, or cram them into a railway car and propel them under a river; we never leave them alone for a minute, and we never really talk to them at all, although we are pleased to death if they will talk to us—from a platform. In short, we run the poor devils ragged with our ferocious hospitality, all because we wish to

give them a good time. It is no wonder that they, almost unanimously, gasp out from the gangplank of the departing steamer, "Delightful people, the Americans; but they don't know how to talk."

The desire to be an accomplished conversationalist is a motive that impels many to continue their education. It is evident that any experience in life can add to one's conversational ability. The ability to converse well may be taken as a sign of effective education. Some claim that no other accomplishment compares with this one in the matter of giving and getting pleasure.

ALUMNI EDUCATION

During the past few years there has been a decided movement for alumni education. Alexander G. Ruthven, president of the University of Michigan, sounded the keynote to this movement, from the point of view of the colleges, in an address given in 1929 when he said:

> If the university can be of assistance to alumni by continuing their education, it is admittedly under some obligation to provide this service, since—as generations of educators have been informing graduating classes—their education is not complete and they are graduating into, not out of, the university.[2]

The alumni point of view toward continuing education is expressed in an editorial in Rutgers Alumni Monthly for February, 1929:

> Rutgers along with about 50 other colleges and universities recognizes that she has a real educational obligation to her alumni. These colleges have become convinced that learning has exactly reversed itself since Methuseleh was a boy—he didn't have much to learn and he had a long time in which to learn it. The problem to-day is to learn from the experiences of others—otherwise by the time one graduates from the school of experience one is too old to put the knowledge into practice.[2]

At Grinnell College, the editor of *Grinnell and You*, March, 1929, suggested to his alumni readers:

> Education moves too fast for anyone to say that he has got his degree or finished his education. Any degree, whether it is A. B. or the august Ph. D., is after all only one degree up, and is still a long way from the boiling point. * * * The theory that college education was something which was pumped into you for four years, and which you could keep on spouting for the next 40, has gone into the discard. We are about to consider education as a life-long process, beginning, as some one has said, when the nurse leaves and not winding up even with the day of judgment.[2]

Among the observations submitted, in September, 1928, by the members of a committee of the American Alumni Council, were the following:

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[2] Alumni and Adult Education, an introductory survey, by Wildred B. Shaw. Published by American Association for Adult Education, 60 East Forty-second Street, New York City.

1. That there is recurring evidence to indicate a steadily growing realization on the part of college graduates that, up to the present, intellectual development is prone to stop on graduation.

2. That the psychological time has arrived when plans should be made and actual attempts started to fit the alumni wherever possible and practical into the larger scheme of American higher education.

3. That the determination of the form of such participation is primarily a job for "education" in contrast to "alumni," and that it is a job of the alumni to create and prepare a receptive public.[3]

When it is realized that there are more than 800,000 active members in alumni associations and that there are 125 alumni magazines with 250,000 subscribers one can form some concept of the possibilities of adult education among college alumni.

This movement not only means that large numbers of former college men and women are determined to continue their education but that their influence must have considerable weight in directing greater attention to those subjects taught and methods used during the college years that will have a greater carry-over value.

CONCLUSION

Teachers of adult classes are optimistic because their work signifies mental and spiritual values that continue to the end of life. No doubt the greatest cause of pessimism in the world is that so many people are unable, at the proper time in their lives, to make the necessary transition from interests that are largely physical to those that are more mental and spiritual. There is perhaps no greater tragedy in life than a self-centered, pessimistic old age. To the extent that this condition is due to lack of wider interests continuing education is the well-marked path taken by those who have grown old gracefully, giving and getting new inspiration as age advances, and making their contributions to the world in fullness of maturity.

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[3] Adult Education and the Alumni. A statement by the aims and policies committee of the American Alumni Council. Published by the American Alumni Council, Ithaca, N. Y.

II. PARENT EDUCATION

By Ellen C. Lombard
Associate Specialist in Home Education

GROWTH AND SIGNIFICANCE OF MOVEMENT

This section of the Biennial Survey of Education for 1928–1930 deals with the growth and significance of the parent education movement in the United States. It contains a brief review of some of the situations out of which this field of education is evolving. It contains also descriptions of important projects which indicate the progress made during the past biennium by national and State parent-teacher associations throughout the country.

Within the past four decades a parent consciousness has developed in the United States. The most intelligent of parents have been bewildered by the problems of family life and child training. They have been unable to understand why methods of dealing with children in past generations do not function in the solution of their immediate problems. However, they have not yet become fully conscious that the changes which have disturbed the whole world have created new situations affording new tools for leisure time, more rapid methods of travel and communication, and many other unfamiliar conditions to which the family has been compelled to make rapid adjustments. In meeting these new and difficult situations in modern life parents have had little past experience which they could bring to their aid. They recall, perhaps, that their parents depended upon the teachers to solve the problems their children carried with them from the home into the school. To-day parents are becoming more and more conscious that teachers alone can not train the children but that child training is the joint responsibility of parents and teachers.

The changing conditions creating difficulties with which parents acknowledge they are baffled, emphasize the importance of preparing parents to meet intelligently their joint responsibilities with teachers. The need for the education of parents has been evident for a long time, but the facilities for this unusual field of educational effort have been slow in developing. The tardiness in the recognition of this new phase of education may have been due to the tra-

ditional belief, still existing in the minds of many people, that parents possessed a native endowment which might be brought to their aid in emergencies.

FUNDS APPROPRIATED FOR PARENT EDUCATION

Until about six years ago there was practically no financial support, public or private, upon which parent education and child study could depend, and up to the beginning of the last decade little actual knowledge of child life based upon scientific facts was available.

Beginning in 1922 the Laura Spelman Rockefeller Memorial granted a series of appropriations toward the support of research in child development and experiments in parent education which continued through 1930 under the Spelman Fund for 1929–30 and have aggregated something over $7,000,000 during that period. For the most part these grants have been made to State universities, land-grant colleges, teachers colleges, and State and municipal departments of education.

National fellowships and scholarships in parent education have been made available to men and women in the United States and Canada by the Spelman Fund of New York. A fellowship committee of the National Council of Parent Education designates the fellows and scholars and selects the institutions in which these students shall work. Candidates may indicate the institutions in which they wish to spend the 1-year period on scholarship or fellowship. The following agencies, to one or more of which fellows and scholars have been assigned, are engaged in training leaders for parent education: Columbia University, Child Development Institute, Teachers College; Cornell University; University of Cincinnati; University of Iowa; University of Minnesota; University of Toronto; and Merrill-Palmer School. Besides the research studies in institutions carrying courses in child development and parent education, graduate students are trained as prospective leaders; parent-child relationships are analyzed; parents are instructed in sound practices in child care and training; and demonstrations are conducted in the organization and conduct of study groups.

NATIONAL COUNCIL OF PARENT EDUCATION

The National Council of Parent Education was organized in 1925 by representatives of 15 agencies throughout the United States conducting projects in parent education. Since its organization the council has extended its membership to include 60 agencies, whose programs evidence a strong emphasis upon parent education.

Included in the membership of the council are 25 departments of universities and colleges, 5 of which, together with 1 governmental agency listed, have memberships in 2 of their divisions. The remaining membership is distributed among the following agencies: 11 associations whose work is generally of national scope, 3 departments of the Government, 3 periodicals, 2 institutes, 2 State departments of education, and 1 each of the following agencies: Child-welfare research center, two public nursery schools listed as one membership, foundation, training school, kindergarten, church, board of education, and an insurance company.

With headquarters established in New York the national council functions under a governing board with a staff in the central office where council meetings are called. It concerns itself with the selection of candidates and the promotion of leadership training, the creation of standards for the preparation of leaders, and it acts as a clearing house for information in this field. Materials, methods, and results of work in parent education are studied and evaluated and the preparation of suitable materials is encouraged.

WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION [1]

In July, 1929, President Hoover announced a conference on child health and protection to be held within a year. This was the third White House conference to be called by Presidents of the United States. The first was called by President Roosevelt in 1908; the second by President Wilson in 1919; and just 10 years later President Hoover appointed a planning committee of 27 men and women whose interests are related to some phase of child life to arrange for the third conference. Four main sections and several subsections were organized under expert leadership. Medical service, public health service and administration, education, and training, and the handicapped were topics of main sections under which 17 subcommittees were organized. In addition to the subcommittees there were many advisers and subsubcommittees. More than a thousand experts made contributions of time and service for the success of the vast research project. Since these experts were for the most part employed gainfully in various institutions, it is fair to assume that in addition to the amount of a half million dollars which was originally granted to President Hoover for expense of this conference, a vast amount of money is represented by the work of the experts who served on the many committees. The work of all committees, touching as it does the child from birth to maturity, is related to the field

[1] Before this report was sent to press the Children's Charter, consisting of 19 points for child welfare, was issued as a result of the White House conference.

of parent education. The work of the conference extended to the problems of people in the United States of all creeds and races.

At the first meeting of the planning committee, President Hoover said—

> The greatest asset of a race is its children, that their bodily strength and development should prepare them to receive the heritage which each generation must bequeath to the next.

GOVERNMENTAL AGENCIES PROMOTE THE EDUCATION OF PARENTS

Three governmental departments—Interior, Labor, and Agriculture—the Federal Board for Vocational Education, and the Public Health Service report projects in parent education. The service is characterized by its functions as, conducting research, stimulating projects, and publishing material.

PARENT EDUCATION WORK IN COLLEGES AND UNIVERSITIES

More than 44 colleges and universities in 23 States have projects emphasizing more or less child development and parent education. The institutions mentioned in another section of this report, supported by funds of foundations, carry programs which are characterized by five elements of work: Training professional leaders; training nonprofessional leaders; teaching parents in groups; teaching parents individually; and conducting research in child life, family life, and parent-child relationships.

In addition to the colleges and universities in which parent education is supported by appropriations of the Spelman Fund, Western Reserve University, Cleveland College, Ohio State University, the University of Pennsylvania, the National College of Education, Evanston, Ill., and Vassar College, are conducting parent education projects under appropriations allowed by their respective institutions or through the use of benefactions.

PUBLIC SCHOOLS AND PARENT EDUCATION

The public schools are taking part in projects of parent education using public funds for the support of the work.

It is reported by the New York State Department of Education that the public schools in Binghamton, Gloversville, Albany, Schenectady, Amsterdam, and Poughkeepsie cooperate with the department's project in child development and parent education, and that various superintendents of schools seem to be willing to support a parent education worker as a regular member of the school staff. At public expense two persons began work in the schools of Binghamton and Amsterdam in September, 1930, and three more will begin in Sep-

tember, 1931. Projects in parent education are reported to be in progress under public-school administration in Auburn, Batavia, and Rochester.

School funds support a project in parent education in every school district in Council Bluffs, Iowa. One part-time director of child study and parent education and five nonprofessional workers carry on the work as outlined by the Iowa Child Welfare Research Station of the State University of Iowa. Des Moines also has a project in parent education which is carried on under public-school supervision.

In the State of California a part of the program for parent education includes the organization of study groups which are conducted in public schools and are supported by funds from State, county, and local sources, and from the Spelman Fund of New York. There are 20 full-time workers and 1 part-time worker. In addition, there are reported 70 nonprofessional workers. This is a cooperative project in parent education in which the California Congress of Parents and Teachers, the local school authorities, and the State department of education participate.

It is reported by the California Congress of Parents and Teachers that in 1929–30 there were in California 469 study circles and 123 parent-education classes. The State department of education reports that during 1929–30 approximately 4,000 parents were under instruction. In order to secure the acceptance of a parent-education class as an integral part of the public schools in this State the minimum number of enrollments required by the department is usually 25 for each group.

Under a director of experiment in parent education a program is going forward in the Pasadena (Calif.) city schools financed by city school funds. One full-time worker, one part-time worker, and three nonprofessional workers are included on the staff. Los Angeles city school system supports a major project by which in 1929–30, 400 parents were reached by consultation in connection with a nursery school.

In Okmulgee, Okla., a director of parent education is in charge of the program in this field. Okmulgee public schools cooperate in the State and local parent-teacher association programs supported by State and local school and parent-teacher association funds. One full-time worker and two part-time professional workers were employed on the staff, and there was an enrollment of 373 parents in the classes during 1929–30. Parent-education programs are also carried on in Oklahoma in Enid, Oklahoma City, and Tulsa under the public-school system.

There are, no doubt, other examples of public administration of parent education under school funds which have not yet been brought

to the attention of the Office of Education, but there is already evidence here to confirm the opinion expressed by some educators that parent education may be administered successfully within public schools with the support of public-school funds.

STATE DEPARTMENTS OF EDUCATION AND PARENT EDUCATION

Twelve State departments of education report projects in parent education, four of which have organized new units with trained experts in child development and parent education in charge of the work. In eight State departments the work of parent education has been allocated to divisions already functioning in fields more or less related to parent education, such as the divisions of teacher preparation, adult education, extension education, and home economics. Two of the departments—California and New York—have conducted successful major projects in this field. The California project has been supported in part by the Spelman Fund of New York, the State department of education, and the State organization of parents and teachers. The project in New York has had the support not only of the State department of education and the Spelman Fund but also of an interested individual.

It is not the purpose of these projects to organize new machinery for parent education but to make use of, strengthen, and direct the existing agencies which may be capable of doing worth-while work.

PARENTAL EDUCATION WORK IN THE CALIFORNIA STATE DEPARTMENT OF EDUCATION

The California State Department of Education has a project of parent education which functions under the chief of a bureau of child study and parent education. The two main functions of the work conducted in this bureau are to train nonprofessional leaders in this field and to teach parents in groups. A third function, upon which less emphasis is placed, according to reports, is to teach parents individually. The specific aims are to create among parents an analytical attitude toward their problems in child care and training, and to teach them how to plan solutions for problems. In the project of parent education under the State department in 1930 approximately 3,000 parents have been enrolled; some of them were in 10 study groups under the instruction of professional leaders, and the rest were in 150 study groups led by nonprofessional leaders. The policy of the State department of education in forming study groups is to rely upon the organizations now at work on parent education. Criteria for the selection of materials were the needs expressed by

parents, ability of leaders, and the judgment of specialists. This work is financed by State, county, and local funds supplemented by funds appropriated by the Spelman Fund of New York City.

ORGANIZATIONS CONDUCTING PARENT EDUCATION PROJECTS

NATIONAL CONGRESS OF PARENTS AND TEACHERS

During the biennium of 1928–1930 the increase in the membership of the National Congress of Parents and Teachers amounted to nearly 14 per cent. Since its inception in 1897 this organization, which was the first group of parents national in scope to be founded in the United States, has been significant for its phenomenal growth. Its functions as an educational organization through State and local branches in 48 States whose individual members are in full membership with the national organization. Parent-teacher associations form a large percentage of the constituent local groups in the organizations, although some of the groups function as home and school associations, mothers' clubs or circles, preschool associations, etc.

Parent-teacher associations give lay support to the schools with which they are connected; they interpret the policies and practices of school procedures and maintain educational projects for parents.

There has been a growing conviction among parent-teacher leaders that the study group is the logical unit in which the education work of parent-teacher associations functions most effectively. Study groups and reading circles have been organized within the parent-teacher associations in many States. During the year 1929–30 more than 1,800 groups are reported throughout the United States which function as units of the National Congress of Parents and Teachers. This number does not include the study groups organized under other auspices.

The summer round-up of children, an important health project of the National Congress of Parents and Teachers, made considerable progress in 1929–30. According to reports, 3,844 local associations in 45 State branches representing 1,640 communities were registered in the round-up and the total number of children examined was reported as 56,865.

Parent education, the main purpose of the National Congress of Parents and Teachers, is carried on through the activities of the central headquarters in Washington, D. C., through the *Child Welfare Magazine*, its official organ, and State bulletins; and through departments and committees, officers, and field secretaries. A general secretary is in charge of the headquarters and the secretarial group includes six members. To extend its program of education, a

2-year grant from the Spelman Fund of New York City made possible in 1930 a consulting service in parent education, program aids for State group, and a survey of what is being done in parent education.

State and local organizations of parent-teacher associations are practically autonomous as to the programs of service, but they work with carefully developed machinery based upon the experience of the national organization. Program material, however, of national source is used when it can be adapted to the needs of the locality but its use is optional.

There is a wide diversity in the types and effectiveness of programs both in State and local groups as well as in the size of memberships and incomes reported by State and local organizations. The methods of reporting incomes vary and therefore it is difficult to make comparisons.

The California Congress of Parents and Teachers reports not only the State income but it also has a statistician's report of available information on the income of local, district, and council organizations. During 1929–30 the total income of local, district, and council organizations in California reported was $544,030.51; the income of the State office during the same period was $39,831.01. The membership in this State organization, the largest in the United States, was 180,888.

Other States report the following figures for their membership: Illinois, 108,912; Ohio, 95,429; New York, 73,513; Michigan, 73,038. In 1929–30 the increase in membership in 33 States, Hawaii, and the District of Columbia amounted to 98,364 members. The States in which increase was reported were: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, and Wyoming. Some of the activities of States are given in a brief statement below as either typical or unique features of the programs carried on.

Alabama.—Two State colleges and the State university in Alabama graded the accomplishments of parents in the 6-week courses in parent-teacher work, and instruction was given parents at a summer conference at the University of Alabama under trained leaders. One of the outstanding projects of the Alabama Congress of Parents and Teachers is carried on by the State committee on kindergarten extension. The chairman of the committee works to get legislative enactment for the appropriation of funds to provide for the admittance into schools of children from 4 to 6 years of age.

Arkansas.—Cooperating agencies have aided the Arkansas Congress of Parents and Teachers in its effort to develop an educational program. Some of these agencies are: The library and vocational divisions of the State department of education which has employed a director of parental education, the State University, and the Arkansas Education Association. A 2-week summer course in parent-teacher work has been offered by the State Teachers College. During 1929–30, 150 study groups were established within parent-teacher associations, 60 pre-school associations were in operation, and in Little Rock 23 classes of parents were conducted monthly under home economics direction.

Georgia.—More than 60 leaders from Athens, Macon, and other centers met for an informal discussion on the work of parent education in the State of Georgia, November, 1930, at the call of one of the leaders in pre-school work. Various aspects of the work—educational, social, and religious—were described, and the progress in this field of education was reported. A majority of the persons attending the conference were officers or committee chairmen of parent-teacher associations. Parents' study groups, reading circles, and pre-school associations were reported as functioning in many centers. The head of the child development and parent education department of the Georgia State College of Agriculture reported that a program for training leaders is conducted under a 5-year grant from the Rockefeller Fund. Seventy-six study groups were led in 1929–30 by professional leaders under the supervision of this college project. In rural districts 1,986 parents were enrolled in these groups and in urban centers there were 1,762.

There was also reported at this conference a project of parent education with colored parents, which is sponsored and promoted by Spelman College in Atlanta, where a nursery school of colored children serves as an experimental center.

Illinois.—More than 400 training classes for leaders of study groups of parents are reported to have been in existence in the State of Illinois under the sponsorship of the Illinois Congress of Parents and Teachers.

Michigan.—The State parent-teacher association cooperated with the extension division in support of the parent education project by which lecture conferences were given in four centers. Various specialists in the colleges and the university of the State were the speakers for this work. The whole program of this project includes a radio service to parents of 24 lectures and other features.

North Carolina.—During the past biennium the North Carolina parent-teacher association movement had the active support of the North Carolina Education Association, the State university, and the

North Carolina College for Women. A second parenthood institute was held at Black Mountain, N. C.; a 6-week summer school credit course was given at the North Carolina College for Women; a summer institute was conducted at the University of North Carolina at which five parent-teacher workers from each of the six districts in the State attended at the expense of the State organization.

Ohio.—In Ohio a state-wide program for parent education has been instituted by the Ohio Congress of Parents and Teachers. Conferences of representatives of colleges and universities have been held to determine the standards for a course which should be set up for the training of leaders of parents' study groups. Several institutions in the State are conducting courses for the education of parents and for the development of leaders for study groups.

Pennsylvania.—For the past two years the 4-year plan for a course of study "Education for parenthood" has been in operation. Sixty pre-school or child-study groups were enrolled in this course in 1929–30.

South Carolina.—Large school improvement associations affiliated with the South Carolina Congress of Parents and Teachers during 1929 according to reports. They are characterized as a fine type of rural association. This unites two groups of school benefactors in projects for the welfare of the children of the State. Winthrop College conducted a course in parent-teacher organization, child psychology, and community organization in its summer session for workers in the field of parent-teacher associations.

Tennessee.—Schools of instruction were conducted in each of 15 districts on the organization and conduct of parent-teacher associations, and a credit course on the subject was given, in 1929–30, at the summer school of the University of Tennessee. Definite parent education work is carried on in 19 pre-school and in 38 study circles.

Virginia.—The University of Virginia conducted a credit course in the parent-teacher movement in its summer school for which credit toward a degree was given. The Virginia Congress of Parents and Teachers requires that its State officers shall have the equivalent of work done in the short course in order to be qualified for nomination for office.

PARENT-TEACHER ASSOCIATIONS IN CATHOLIC SCHOOLS

The National Catholic Welfare Conference issued in 1929 a leaflet on parent-teacher associations in Catholic schools. This publication contains information on the function, area of work, methods of organization, and types of activities promoted by these organizations. Catholic parent-teacher associations are reported to be instituted in schools in 30 cities in the United States. In Trenton, N. J.,

it is mandatory for all parochial schools to form such associations. The membership in Trenton, which is distributed among 67 associations, includes 5,226 mothers, 465 fathers, and 473 teachers. In the United States in 1929 there were 245 Catholic school parent-teacher associations, with a membership of approximately 23,725.

NATIONAL CONGRESS OF COLORED PARENTS AND TEACHERS

Considerable growth characterizes the work of the National Congress of Colored Parents and Teachers which was organized in 1926. It is reported that State branches have been organized in 15 States, with a total of 1,000 local associations and 18,000 members. The National Congress of Parents and Teachers has assisted in the development of this organization and continues to act in an advisory capacity. The seven cardinal objectives of education have been adopted as a permanent platform of the National Congress of Colored Parents and Teachers.

AMERICAN HOME ECONOMICS ASSOCIATION

The program of the American Home Economics Association in parent education is carried on by an advisory committee in child development and parental education. One full-time professional worker serves as field worker in the development of the program which has for its purpose the training of professional leaders, conducting and stimulating research and projects, and publishing material. It is reported that a cooperative program is carried on with organized educational agencies. This association handles the funds appropriated by the Laura Spelman Rockefeller Foundation for the maintenance of the Washington Child Research Center in Washington, D. C. The purposes of the center are to study child life and to assist parents in analyzing their situations as parents, and to train leaders.

The official organ of this association is the *Journal of Home Economics*.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

Under the supervision of an acting director and educational secretary the American Association of University Women conducts projects in teaching parents individually, conducting and stimulating research and projects, and publishing material on subjects related to child development. It is reported that in 1929–30, 319 study groups were in operation.

The official organ of this association is *The Journal of the American Association of University Women*, a quarterly periodical.

CHILD STUDY ASSOCIATION OF AMERICA

A program of lectures and conferences, of the preparation and dissemination of literature on child development and parent education, of experimentation in the field of child study groups and of research, characterizes the work of the Child Study Association of America, which centers in New York City. In 1930 this organization reported nine study groups under direction at headquarters and 146 study groups in local or country-wide affiliation. Through groups the organization reached 3,000 parents. Three hundred individual parents were reached in rural areas, and in urban centers 5,000 were served, according to reports. Research studies have been completed on the subjects of parent-child relationships and discussion records and a study is in progress on personnel of parent education groups. Fourteen full-time, 12 part-time professional, and 29 nonprofessional workers were engaged in this service during 1929–30.

The official organ of this association is *Child Study*, a monthly periodical.

AMERICAN SOCIAL HYGIENE ASSOCIATION

A major project in parent education is reported by the American Social Hygiene Association. According to reports, this project functions to train professional and nonprofessional leaders; parents are taught in groups and individually; research is stimulated and conducted and considerable material on sex education is prepared and distributed. There are six full-time professional workers on the staff of this organization. It is reported that in 1929–30, 75 study groups were led by professional leaders and that approximately 45,000 parents were reached.

COOPERATIVE EDUCATION ASSOCIATION OF VIRGINIA

The Virginia Cooperative Education Association aims to develop the cooperation of the citizens of the State with the schools. The activities of this association cover the field of civic work throughout the State as well as that of school improvement. The organization functions under the leadership of State officials who act as officers and who head the committees. There were reported in 1929–30, 1,642 community and junior leagues in the State of Virginia with a total income of $178,469. The work includes improvement of educational, sanitary, and health conditions in communities, and of church and community welfare. Farms and gardens were improved; roads and streets were bettered; civic beauty and attractive homes were promoted; and the league worked for a better social life and wholesome recreation.

CITY-WIDE PROJECTS IN PARENT EDUCATION

Large federated urban groups of parents which are functioning locally have been organized in several cities—in Philadelphia, Parents' Council; in New York, United Parents' Association of Greater New York Schools (Inc.); in Brooklyn, mothers' clubs, etc.

PSYCHIATRIC CLINICS AND PARENT EDUCATION

Psychiatric clinics have made considerable progress in the analysis of the behavior of problem children and of problem parents during the past decade. The United States Children's Bureau lists 529 clinics throughout the United States.[2] The psychiatrists in some of the clinics report that they teach parents in groups and individually; train professional and nonprofessional leaders, and publish material. A directory of psychiatric clinics for children in the United States, describing the work of the clinics, was issued by the Commonwealth Fund of New York City, which contains information on the activities of State departments of mental hygiene.[3]

PARENT EDUCATION PROGRAMS OF NURSERY SCHOOLS

Parent education is an essential element of the program of child development in nursery schools, according to reports made by some directors of these schools. Consultations with parents on the physical, mental, and emotional life of children are held with individual parents and with groups of parents by psychologists, physicians, psychiatrists, dietitians, and educators.

Centers for child development which have been established in such institutions as Yale University, the University of Minnesota, the State University of Iowa, University of California, in which nursery schools are conducted for the observation and training of normal and exceptional children, furnish research facilities for experts who are carrying on studies in child life.

The need of standards in methods and practices in nursery schools and the difficulty of adjusting children to the conditions of such schools without breaking up parent-child relations was pointed out by Ilse Forest, of Iowa State Teachers College. She says—

> It appears, then, that the standardization and desirable growth of the nursery schools in the United States are largely dependent upon the intelligently cooperative experimental efforts of private and public institutions. Such

[2] List of Psychiatric Clinics for Children in the United States. Bureau Publication No. 191. Children's Bureau, United States Department of Labor, Washington, D. C., 1929. 28 p.

[3] Directory of Psychiatric Clinics for Children in the United States. Second edition, 1928. Commonwealth Fund of New York City, 578 Madison Avenue, New York, N. Y.

experiment is needed to determine: (1) The actual values of the nursery school at its best; (2) the most appropriate methods and techniques of nursery-school education; (3) the most desirable type of teacher training for nursery-school work; (4) practical ways of making (1) and (2) available for all or most children.

This statement was written in 1927 and during the past three years considerable progress has been made in experiments concerned with the points mentioned. Most people agree that the nursery school is particularly advantageous to working mothers and to others who are unable, for one reason or another, to give adequate guidance to their children at home. It is indicated by the same writer that one of the outstanding problems in connection with nursery-school education is to find some way of securing from the community this type of school for the young child without breaking up his normal family relationships.[4]

Arnold Gesell says—

The only principle which can keep us from going far astray in this complicated field is that which frankly accepts as basic and all-determining the preservation of the parent-child relationships.[5]

PREPARENTAL EDUCATION

The development of courses to train students for parenthood in high schools and colleges in a knowledge of the nature and needs of little children has continued during the past biennium. In many institutions nursery schools have been instituted where young students may observe children and where advanced students may pursue their researches in child life.

As yet there seems to be no uniformity in the selection of departments of colleges and universities to which courses in child care and training are generally allocated. A survey in the State of Ohio indicates the allocation of such courses in 30 colleges and universities. They are carried on in one or another of the following departments: Education, sociology, psychology, parental education, extension, and home economics. The subjects of these courses cover all aspects of human growth and development of family life.

The courses in the upper grammar grades and high school are generally offered in conjunction with home economics courses, although they are also reported to be carried on by experts in school departments of psychology and by teachers in the schools. It is reported that boys as well as girls take courses in preparental education.

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[4] Forest, Ilse. Preschool Education. New York, Macmillan Co., 1927; p. 369.

[5] Gesell, Arnold. The Nursery School Movement. *In* School and Society, 20: 644–52, November, 1924.

A section of the Twenty-Eighth Yearbook on Preschool and Parental Education (1929) contains a chapter on experiments in preparental education. The chapter deals with recent history and development of preparental education in America, the teaching of child care without the aid of nursery schools, present status of preparental education in America, and typical collegiate and university centers for preparental training.[6]

LITERATURE OF CHILD DEVELOPMENT AND PARENT EDUCATION

Within the past decade scientific experts have produced a new literature in child development and parental education as a result of research in which they interpret their findings in child life and parent-child relationships. Whereas in the past parents could find few authoritative books on the physical, mental, and emotional life of children, now they may read Gesell, Blatz and Bott, Thom, Mateer, De Schweinitz, Popenoe, Blanton and Blanton, Fenton, and others.

SUMMARY

This brief survey indicates that progress has been made in the field of child development and parent education; that this field has been stimulated by large appropriations from private and public sources; that public agencies are taking over more and more the responsibility for parent education; that colleges and universities and State departments of education have an important place in the development of this new field of education; that the parent-teacher movement is growing in significance and effectiveness; and that parent consciousness has been awakened to the need for a better understanding of the problems of child care and training, and to the importance of the task in education which they share with teachers.

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[6] Twenty-eighth Yearbook, Preschool and Parental Education. National Society for the Study of Education. Bloomington, Ill., Public School Publishing Co., 1929; Ch. xi, pp. 355–404.

CHAPTER XIII

COLLEGE AND UNIVERSITY EDUCATION

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Contents: Part I, *Growth and coordination of higher educational institutions*—Aspects of growth—Problems resulting from expansion—Higher educational associations—Coordinating agencies for research—Surveys. Part II, *Emerging types of colleges and universities*—Recent decisions—Present trends in higher education.

PART I. GROWTH AND COORDINATION OF HIGHER EDUCATIONAL INSTITUTIONS

The preparation of young men and women in our universities and colleges for the numerous activities and responsibilities that engross the lives of the American people has become one of the major enterprises of the country. This is evidenced not only by the remarkable growth in the number and size of higher educational institutions but also by the increasing seriousness of effort that is being put forth by these institutions to improve the quality of their product.

Perhaps the outstanding feature of college and university education for the biennium 1928–1930 has been the many scientific studies and surveys made covering nearly all aspects of college and university achievement on a scale hitherto unknown in the history of modern education. Although the majority of higher educational institutions have not been entirely devoid of critical self-analysis in the past, it has only been within recent years that conditions have compelled the colleges to study in a more definite manner the ways and means for educational readjustment and to lay firmer foundations for the revaluation of educational aims and procedures.

This unprecedented activity in higher educational life can only satisfactorily be understood if we consider the entrance of new and important factors of growth, development, and control that have become more fully crystallized and more effective within the past decade or during the period since the World War. At that time it was stated that the year 1916–17 marked the close of an important

epoch in the history of higher education in the United States, but it was doubtless equally true that a new period of higher education was being ushered in; a period which will be one of great significance in our educational history and one that will tax for many years the best efforts of the leaders of our universities and colleges to meet the issues and solve the problems that are developing.

ASPECTS OF GROWTH

For the 25 years preceding the World War the number of colleges and universities remained practically constant. In 1916–17 the number reporting was 662, including 82 junior colleges. In fact, during the 25-year period mentioned there had been a slight decline in the number of universities and colleges, and even by 1920 the total number had reached only 670. However, in 1926 the number had increased to 975, and in 1928 to 1,076, an increase of 107 institutions reporting for the biennium and 412 for the 9-year period.[1]

An analysis of the several aspects of growth of colleges and universities is given in the following table:

TABLE 1.—*Growth in number of colleges and universities based on the official reports to the Office of Education*[1]

Types of institutions	Number of institutions								
	1928			1926			1920		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
1	2	3	4	5	6	7	8	9	10
Colleges and universities, including junior colleges	1,076	226	850	975	154	821	670	109	561
	100%	21%	79%	100%	15.8%	84.2%	100%	16%	84%
Colleges and universities, excluding junior colleges	828	112	716	822	107	715	618	99	519
	100%	13.5%	86.5%	100%	13%	87%	100%	16%	84%
Junior colleges	248	114	134	153	47	106	52	10	42
	100%	46%	54%	100%	30.7%	69.3%	100%	19%	81%

[1] Does not include institutions in Alaska, Hawaii, and Porto Rico, nor does it include institutions offering one year of junior college work.

According to Table 1, in 1920 the publically controlled institutions constituted 16 per cent of the total number; in 1928 they constituted 21 per cent. In 1920 the privately controlled institutions constituted 84 per cent of the total number; in 1928 they constituted 79 per cent. If the junior colleges are excluded, for 1920 the public institutions constituted 16 per cent of the total number; in 1928 they constituted 13.4 per cent. During the same time the percentage of private insti-

[1] Educational statistics for the year ending June, 1930, were not fully assembled, consequently the figures for the full decade can not be presented in this report. The figures compare 1919–20, 1925–26, and 1927–28, covering nine years.

tutions increased from 84 per cent to 86.5 per cent of the total. Likewise the public junior colleges reporting increased from 19 per cent to 46 per cent of the total, while the private junior colleges decreased from 81 per cent to 54 per cent. It is evident from the figures given that the increase in the number of colleges during the biennium largely has been caused by the multiplication of junior colleges, principally those publicly controlled.

During the biennium 1926–1928 the number of professional schools, with the exception of those of law, has somewhat decreased, as shown in the following table:

TABLE 2.—*Comparison in number of professional schools*

Type of school	1928	1926	Type of school	1928	1926
Theology	176	180	Pharmacy	66	67
Law	136	136	Dentistry	41	44
Medicine	73	77	Veterinary medicine	11	12

These data, in addition to other indications, appear to show that for the present there is no need for an increase in the number of professional schools of the country. And if the junior colleges are excluded, it would appear that there will be little increase in the number of 4-year colleges and universities in the future. However, the junior colleges doubtless are destined to increase in proportion to the growth of the secondary schools.

The number of engineering schools, as well as the number in agriculture, has remained stationary during the biennium; however, there has been a large increase in the number of teacher-training institutions.

TABLE 3.—*Growth of instructional staff*

Year	Total number of teachers				Number of teachers in public institutions				Number of teachers in private institutions			
	Number of institutions	Total 100 per cent	Men	Women	Number of institutions	Total 35.2 per cent	Men	Women	Number of institutions	Total 64.8 per cent	Men	Women
1928	1,076	67,209 100%	52,263 77.7%	14,946 23.3%	226	23,667 100%	18,604 79%	5,063 21%	850	43,542 100%	33,659 77.3%	9,883 22.7%
1926	975	62,224 (100%) 100%	48,649 78.2%	13,575 21.8%	154	20,890 (33.5%) 100%	16,815 80%	4,075 20%	821	41,334 (66.5%) 100%	31,834 77.3%	9,500 22.7%
1920	670	42,882 100%	34,111 79.5%	8,771 20.5%	109	-------	-------	-------	561	-------	-------	-------

In 1928 the total number of teachers in 1,076 colleges and universities reporting was 67,209, an increase of 8 per cent over the figure for 1926, and of 45 per cent over the figure for 1920. Of those teach-

ing in 1928, 35.2 per cent were teaching in publicly controlled institutions and 64.8 per cent in those privately controlled. In 1926 the corresponding percentages were 33.5 per cent for public and 66.5 for private institutions. Of the 67,209 teachers listed in 1928, 77.7 per cent were men and 23.3 per cent were women. The figures for 1920 and 1926 show very slight differences from these proportions. On the whole, since 1920 there has been a slight increase in the proportion of women teachers in colleges compared with the number of men teachers.

THE STUDENT BODY

The growth of the student body in the colleges and universities has been very great. As shown in Table 4, in 1920, the enrollments, excluding preparatory students, reached a total of 462,445; in 1926 they reached 767,163; and in 1928 they were 868,793, an increase, respectively, of 65.9 per cent and 88 per cent over the enrollments for 1920. The enrollments in 1928 were 8.8 per cent greater than those for 1926.

TABLE 4.—*Student enrollments*

Year	Total enrollments				Enrollments in public institutions				Enrollments in private institutions			
	Number of institutions	Total	Men	Women	Number of institutions	Total	Men	Women	Number of institutions	Total	Men	Women
1928	1,076	100% 868,793 [2](919,381)	61.35% 533,038 [1] (30,206) (563,244)	38.65% 335,755 [1] (20,382) [2](356,137)	226	38.56% 335,009	211,877	123,132	850	61.44% 533,784	321,161	212,623
1926	975	100% 767,263 [2](822,895)	62% 476,547 [1] (33,185) [2](509,732)	38% 290,716 [1] (22,447) [2] (313,163)	154	36.55% 280,437	180,056	100,381	821	63.45% 486,826	296,491	190,335
1920	670	100% 462,445 [2](521,754)	64% 295,828 [1](38,398) [2](334,226)	36% 166,617 [1] (20,911) [2](187,528)	109	39.24% 181,460	123,752	57,708	561	60.76% 280,985	172,076	108,909

[1] Preparatory students. [2] Includes preparatory students.

Attention is called to the fact that nearly two-thirds, 61.44 per cent, of the collegiate student body in this country for 1928 was enrolled in privately controlled institutions, and over one-third, 38.56 per cent, was enrolled in the publicly controlled institutions. It will also be observed that 61.35 per cent represents the total enrollment of men in 1,076 institutions and 38.65 per cent represents the total enrollment of women for 1928. The figures show that there has been a slight decline in the percentage of men enrolled, compared with the women, since 1920. The number of preparatory students in universities and colleges also has declined to a considerable extent.

The following data show the approximate relative strength of the undergraduate enrollments in the following fields or curricula:

Arts and science and general	353,904
Teacher-training courses	[2] 191,378
Engineering	66,637
Commerce and business administration	[3] 62,000
Law	42,694
Medicine	21,427
Theology	13,642
Agriculture	13,149
Pharmacy	11,125
Dentistry	9,282
Architecture	4,659

Within the colleges the number enrolled in arts and sciences and other general courses is nearly double that in any other curriculum or field. Teacher training is second; however, the total number enrolled in these courses in all types of schools, excluding high schools, reaches 454,138. The third in strength is engineering, which is closely followed by commerce and business administration; the enrollment in these two fields is a little more than a third of the enrollment in arts and sciences.

ENROLLMENTS IN PROFESSIONAL SCHOOLS

The enrollments in the several types of professional schools are compared for the years 1928, 1926, and 1920. In all cases, with the exception of dentistry and veterinary medicine, there have been continuous increases since 1920.

TABLE 5.—*Professional enrollments*

Type of school	Year			Type of school	Year		
	1928	1926	1920		1928	1926	1920
Law	42,694	40,359	20,992	Dentistry	9,282	11,777	8,809
Medicine	21,427	19,682	14,242	Osteopathy	1,865	1,588	-------
Theology	13,642	13,655	7,216	Veterinary medicine	612	537	908
Pharmacy	11,125	10,815	5,026				

The enrollments in engineering colleges approached a peak when, in 1920, approximately 52,000 were enrolled, the number reaching 56,766 for 121 schools of engineering in 1921–22. There was a drop in the following year to 52,288, but since that time enrollments in engineering have gained steadily on the whole, and in 1928 in 148

[2] This figure does not include the 202,760 students enrolled in teachers' colleges and other professional teacher-training institutions, excluding high schools.

[3] Estimated.

institutions there were enrolled 65,520; on December 31, 1929, in 119 institutions there were 58,853, with 70,000 students estimated for 145 schools.

DEGREES GRANTED

The colleges and universities in the United States in 1928 granted 83,065 baccalaureate degrees. In 1926 the figure was 71,529, and in 1920 it was 38,552. This represents an increase over the 1920 figure of 85 per cent for 1926 and 115 per cent for 1928.

The number of graduate degrees granted in 1928 was 13,834, of which 1,447 were the Ph. D. degree. In 1926, 11,451 graduate degrees were granted which included 1,302 Ph. D. degrees. In 1920, 4,853 graduate degrees were granted, including 532 Ph. D. degrees.

INCOME

The total income for the 1,076 institutions reporting in 1928 was $546,674,266. Excluding additions to endowment, the income was $496,529,309. The total income for 975 institutions in 1926 was $479,774,664, and excluding additions to endowment it was $407,400,056. In 1920 the total income for the 670 institutions was $240,141,994, and excluding additions to endowment it was $189,235,242.

TABLE 6.—*Total income excluding additions to endowment*

Year	Total	Public	Private
1928	100% $496, 529, 309	41. 1% $205, 753, 979	58. 6% $290, 775, 330
1926	100% $407, 400, 056	43% $174, 480, 662	57% $232, 919, 394
Increase	$89, 129, 253	$31, 273, 317	$57, 855, 936
Per cent increase	21. 9	17. 9	24. 8
1920	$189, 235, 242		
Increase by 1928	$307, 294, 067		
Per cent increase by 1928	162		

In 1928 the publicly supported institutions received 41.1 per cent of all higher educational income and the private institutions received 58.6 per cent. The increase in income is shown also. In 1928 the total income of all colleges and universities was 21.9 per cent higher than that of 1926 and 162 per cent higher than that of 1920. In 1928 the public institutions received an income 17.9 per cent greater than that of 1926, and the 1928 income of private institutions was 24.8 per cent greater than that of 1926.

PROPERTY

The total value of property for the 1,076 institutions in 1928 was estimated at $2,413,748,981; in 1926 it was $2,334,307,421; and in 1920 it was $1,257,614,739.

A comparison between the amounts and proportions of the value of property of publicly and privately controlled institutions is given. As the figures for 1919–20 can not be segregated, it is necessary to compare the figures of 1921–22 with those of 1927–28.

The value of all property, including productive endowment funds, in publicly controlled colleges and universities in 1921–22 was $360,184,477; in 1927–28 it was $664,290,782. This indicates an increase in six years of 84 per cent.

The value of all property, including productive endowment funds, in privately controlled colleges and universities in 1921–22 was $1,149,007,939; in 1927–28 it was $2,150,782,193, or an increase of 87 per cent.

The value of productive endowment funds of publicly controlled colleges and universities for 1921–22 was $75,349,422; in 1927–28 it was $110,505,241, or an increase of 47 per cent.

The value of productive endowment funds of privately controlled colleges and universities for 1921–22 was $623,864,030; in 1927–28 it was $1,039,607,010, or an increase of 67 per cent.

The value of all property, excluding productive endowment funds, of publicly controlled universities and colleges in 1921–22 was $284,-835,055; in 1927–28 it reached the sum of $553,785,541, or an increase of 94 per cent.

The value of all property, excluding productive endowment funds in privately controlled universities and colleges, in 1921–22 was $525,-143,909; in 1927–28 this increased to $1,111,175,185, or an increase of 112 per cent.

A comparison of the proportion of property of all kinds between publicly and privately controlled institutions for 1921–22 shows that of the total property value of all schools, the public institutions owned 24 per cent and the private 76 per cent. Of the total value of productive endowment, the public institutions owned 11 per cent and the private 89 per cent. Of the total value of property, excluding productive endowment, the publicly controlled institutions possessed 35 per cent and those privately controlled 65 per cent.

In 1927–28 the percentages were as follows: Of the total property value, public institutions owned 24 per cent, the private 76 per cent; of total value of productive endowments, the public institutions owned 10 per cent and the private 90 per cent; of the total property value, excluding productive endowments, the public institutions possessed 33 per cent and the private 67 per cent.

It will be observed that there has been no change in the proportions of the value of property owned by public and private institutions for the year 1921–22 and 1927–28, the percentages being 24 and 76, respectively. There has been little change in the proportion of the

value of endowment received by public and private institutions for the same years, the percentages respectively being 11 and 89 in 1921–22 and 10 and 90 in 1927–28. With respect to the total value of property, excluding productive endowment, the proportions for public and private institutions show a little change in favor of the private institutions. In 1921–22 the percentages were 35 and 65, respectively, and in 1927–28 they were 33 and 67, respectively.

ENDOWMENTS OF $1,000,000 OR MORE

In 1928 there were 22 publicly controlled universities and colleges and 162 privately controlled institutions reporting endowments or productive funds valued at $1,000,000 or more in each case. In 1920 only 9 publicly controlled institutions and 82 privately controlled institutions reported individual endowments of $1,000,000 or over.

LIBRARIES

The total number of volumes in the libraries of the 1,076 institutions in 1928 was 40,498,291, in 1926 it was 37,549,463, and in 1920 it was 24,191,204.

PROBLEMS RESULTING FROM HIGHER EDUCATIONAL EXPANSION

This extraordinary expansion of higher educational activity during the past decade has been responsible for the multiplication of problems which confront the institutions. The solutions of these problems will doubtless have an important bearing on the future development of higher education. Prior to the World War higher educational institutions were adding schools and curricula to meet the demands for improved preprofessional and professional training, and many schools had qualified according to the standards set up by the several accrediting associations. These standards, largely quantitative in character, related principally to entrance requirements, graduation requirements, number and nature of degrees, size of faculty, scope of instruction, size of institution, training of the faculty, teaching load, size of classes, financial support, salaries, libraries and laboratories, separation of college and secondary classes, and other matters. This work of standardization had proceeded steadily, but was largely limited to the colleges of arts and science and the medical schools.

Although there were some differences between the standards set up by the several accrediting bodies, the differences were not sufficient to retard the closer coordination between all institutions that were accredited, nor to lessen the efforts of the majority of nonaccredited colleges to work toward the ultimate and full realization of recog-

nized standards. Graduates from the prevailing 4-year high schools also came under the stimuli of the accrediting organizations; consequently students entered college with fewer divergencies in the amount and quality of their preparation. Without doubt before 1918 the major accrediting associations were largely responsible for gradually bringing about what constitutes a nation-wide articulation of colleges and universities through the process of setting up and enforcing standards of entrance requirements and academic and financial standards of colleges.

However, during the war and the years immediately following, attention began to be focused sharply on the colleges and universities of the country not merely as instruments of liberal culture and professional training but to an increasing extent as instruments of national service. The entrance of the United States into its postwar industrial and commercial activity throughout the world called immediately for larger numbers of well-educated men and women to take advantage of the great economic opportunities which were rapidly opening up to this country; thus the great industries and all forms of commercial enterprise stimulated the new type of college education which began to center on a diversity of vocational aims for the purpose of serving the demands of our growing economic life. It is the entrance of a vast army of youth in quest of utilitarian education and training which has been most responsible for the new problems of college administration and for bringing into being new criteria of college education, namely, those of the industrial and business leaders who are thinking in terms of business efficiency and dispatch. These criteria not only have affected engineering, technical, and commercial education but also much of the work in colleges of liberal arts and science.

The enormous expansion in industrial activity which must bear a full share of responsibility for the changing attitudes and practices in higher education best may be illustrated by the following statements: In 1902 there were 3,620 power plants in the United States; in 1917 these increased to 6,542. In 1928 this number was reduced to 4,352, but the size of the average power plant in 1920 was seventeen times greater than that of 1902. The capital invested in 1902 was half a billion dollars; in 1928 it had increased to 10.3 billion dollars. Considering the total production of the following commodities during the history of the country, 78 per cent of our coal, 92 per cent of our oil, and 98 per cent of our electric power were produced since 1900.

The horsepower of all prime movers in the United States in 1900 was estimated at 70,000,000, including work animals, engines, automobiles, ships, railroads, mines, manufactories, and electric central stations; in 1928 this horsepower reached the figure of 1,026 millions.

These figures and their relation to education are little understood, but they may be grasped in their full significance by those who attempt to estimate the number and the many kinds of trained men and women who have participated in and helped make possible these industrial changes and who have reached positions of leadership. Even in the field of electric power, Prof. Charles F. Scott, of Yale, says: "The growth in this field has been so rapid that school and college textbooks have not been able to keep up with the changing facts."

The change in fundamental sources of power and expansion of our transportation systems has transformed us from "a Nation of individuals to a Nation of interdependent social groups with dependent economic relationships and clearly defined duties to each other."

As these new influences have increased a tide of heterogeneous youth has placed added responsibility on the college and secondary school standardizing associations. These associations, instead of being confronted with the differences of aims, standards, and modes of control of approximately 600 institutions, have come directly or indirectly into contact with the questions of standards of nearly 1,100 institutions increasingly diverse in character.

The articulation of secondary schools with the colleges—a relatively simple matter before the war—has been complicated by the extension of the secondary-school system to include to a large extent the junior high school from beneath and the junior colleges from above, with all their many subdivisions of technical or vocational study.

For 16 years the principal accrediting agencies had promoted a greater unity in standards of high schools and colleges by meeting as a joint body, known as the National Conference Committee on Standards of Colleges and Secondary Schools, nevertheless a more comprehensive and representative organization was needed to study the questions of increasing costs of education, improved selective processes for college entrants, and other important problems of general and continuing nature that readily could not be financed and studied in thorough fashion by other existing higher educational associations. The merging of the National Conference Committee with the American Council on Education in 1923 gave additional strength to the latter agency, which already had begun to serve higher educational interests on a broad foundation.

THE WORK OF THE AMERICAN COUNCIL ON EDUCATION

One of the principal factors in the promotion of higher educational progress within the past decade has been the American Council on Education. This organization was established as a result of a war

emergency in 1918 under the name of the Emergency Council on Education. Its purpose was to help the colleges serve the Government in prosecuting the war. It served as a mediating agent between the War Department and the colleges in matters pertaining to training of technical specialists for expert service. The council brought together the leading educational associations of the country and obtained for the Government the support of both public and private educational agencies. The council included at that time the Association of American Colleges, the National Association of State Universities, the Association of Urban Universities, the Association of American University Professors, the Association of American Medical Colleges, the Society for the Promotion of Engineering Education, the National Education Association, and the Catholic Education Association. The name of the council was changed after the first meeting to its present designation. The first president of the council was Dr. Donald J. Cowling, of Carleton College.

The success of the American Council on Education in helping colleges to deal cooperatively with the immediate educational problems relating to the war was sufficient to warrant the continuance of its work in attacking the numerous problems which resulted from the rapid postwar expansion of universities and colleges. Under the administration of Dr. Samuel P. Capen, as first permanent director, the council rapidly expanded its institutional constituency, began a definite program of study, and established the Educational Record, the first quarterly published in this country devoted primarily to the interests of higher education. During the administration of the present director, Dr. Charles R. Mann, and the former assistant director, Dr. David Allan Robertson, the council has grown to include within its organization 23 constituent members, including the leading national educational associations primarily concerned with college and university relations, 23 associate members, consisting of societies, foundations, and other educational organizations dealing with particular phases of higher educational activity, and 253 colleges and universities, of which 64 are publicly controlled and 189 privately controlled. The constituent and associate members for 1930–31 are listed as follows: American Association of Colleges of Pharmacy, American Association of Dental Schools, American Association of Junior Colleges, American Association of Teachers Colleges, American Association of University Professors, American Association of University Women, American Library Association, Association of American Colleges, Association of American Medical Colleges, Association of American Universities, Association of Colleges and Secondary Schools of the Middle States and Maryland, Association of Colleges and Secondary Schools of the Southern States, Association of Land-Grant Colleges and Universities, Association of Urban

Universities, Council on Medical Education and Hospitals of the American Medical Association, Dental Educational Council, Department of Superintendence of the National Education Association, Institute of International Education, National Association of State Universities, National Catholic Educational Association, National Education Association, North Central Association of Colleges and Secondary Schools, Society for the Promotion of Engineering Education.

The associate members include the following: Alumni Association of American Rhodes Scholars, American Association for the Advancement of Science, American Association of Collegiate Registrars, American Council of Learned Societies, American Historical Association, American Institute of Architects, American Scandinavian Foundation, Association of Collegiate Schools of Architecture, American Association of Museums, Character Education Institution, C. R. B. Educational Foundation, Engineering Economics Foundation, Federated Council of Art Education, Modern Language Association of America, National Association of Deans of Women, National Association of Placement and Personnel Officers, National Committee of Bureaus of Occupations, National Council of Religion in Higher Education, National Research Council, National Society of College Teachers of Education, National Vocational Guidance Association, Religious Education Association, United Y. M. C. A. Schools.

The American Council on Education directs its activities through standing committees, namely, those on standards, personnel, national legislative relations, international relations, and research.

Among the principal investigations and studies conducted by the council during the past decade are the report of the Commission on Educational Finance Inquiry, which deals not only with the unit costs of higher education but with other aspects of public educational finance; a comprehensive study of modern foreign language teaching; a study of university and college personnel procedure, including the preparation of psychological examinations for freshmen in cooperation with nearly 300 colleges; the preparation of experimental psychological tests in cooperation with a large group of institutions; and the preparation of cumulative record blanks for students as well as other tests which are indicative of student achievement.

Among other activities promoting better relations between American higher educational institutions and those in foreign countries has been the sponsoring of an experiment known as the "Junior Year Abroad." For a number of years selected groups of students from American colleges have spent the junior year in foreign universities, and in most instances have been given credit for the work done.

In 1928 the council published a handbook entitled "American Universities and Colleges," a standard book of reference for higher education in America.

For a number of years the council has studied critically all proposed or pending Federal legislation pertaining to education and particularly as it relates to the establishment of a Federal Department of Education. In this connection President Hoover and Secretary Wilbur appointed the director of the council as chairman of the National Advisory Committee on Education of 51 members, although this committee has no official connection with the council. It is the purpose of this group to chart the basis for the future relations that should exist between the Federal Government and education. The Julius Rosenwald Fund granted $100,000 in support of this project and Dr. Henry Suzzallo was appointed director of the study. Although the committee's work enters several fields of education, the relations of the Federal Government to higher education will be one of the most important parts of this investigation.

To these activities the council recently added a program of educational research. The new committee on problems and plans in education in charge of this program will have the responsibility of formulating a comprehensive program of educational investigation. The recommendations of this committee are expected to be of great value in guiding philanthropy in the wise allocation of funds for educational research purposes. The work of this committee has been given the support of the Julius Rosenwald Fund through a subvention of $35.000 for three years, with the possibility of further assistance.

The most recent project of the council involves the critical study of student achievement. With the aid of a grant of $500,000 from the General Education Board, a series of reliable achievement tests for colleges will be prepared, and if used will place an emphasis on scholastic achievement rather than upon the accumulation of credits. The council has organized for this purpose the Cooperative Test Service under the direction of Dr. Ben D. Wood. The project will be under the general supervision of the council's committee on personnel methods, of which Dean H. E. Hawkes is chairman, and of Dr. John Henry MacCracken, who is now associate director of the council.

Through its success in obtaining funds from private sources for its projects the council has rendered increasing aid to higher education in the study of outstanding problems and in helping the colleges to concentrate for a sufficient period of time on matters of importance.

From December 1, 1919, to April 30, 1930, the council has received altogether a sum of $1,264,596.83. Of this amount $365,186.77 has

been disbursed through the general fund and $95,298.14 has been disbursed for grants for special purposes. The grants for special investigations include disbursements of $202,744.19 for the educational finance inquiry, $254,755.48 for the international education fund, and $322,307.14 for the modern foreign language study.

In view of the changes that gradually have been forced on higher educational institutions in recent years it is of interest to note that the council is now voicing the need for a revision of college standards. Dr. Charles H. Judd, the chairman of the council for 1930-31, in his presidential address of May 10, 1930, called attention to the fact that the North Central Association of Colleges and Secondary Schools, an important constituent of the council, had found many of its standards in need of adjustment. This association has therefore organized a committee on the revision of standards and looks for the cooperation of other interested educational organizations in carrying forward a similar program of revision. A series of surveys will be made by this committee. A subcommittee of five has already begun its investigations with the purpose of finding better criteria and more refined methods of measurements for the determination of excellence in college. Accrediting agencies wish to get as far as possible from mechanical or quantitative standards.

It should be observed that the American Council on Education has evolved an organization of nearly every agency of significance relating to higher education on a purely voluntary basis, unhampered by the conditions of rigid governmental control. It can focus attention on any particular problem for as long a time as the institutional group or groups may find it profitable. Its findings are given voluntary acceptance or rejection. It does not enforce standards, but is the principal private repository for the definition and unification of educational standards. It stands as one of the principal integrating forces of education of the country not only because of its special studies but because of its continuing function as a counciling and an advisory organization flexible in character.

Its approach in the revaluation of higher educational activity is from the standpoint of "standards of achievement" rather than from the standpoint of "standards of time."

OTHER HIGHER EDUCATIONAL ASSOCIATIONS

Attention has been called to the function of the American Council on Education as a unifying force; however, much of the work of many of its affiliated organizations is similar in character, although limited to more specific fields. To evaluate or appraise the work of all these agencies would be beyond the scope of this report; however, attention will be given to some of the activities of the following associations.

THE ASSOCIATION OF AMERICAN COLLEGES

The Association of American Colleges has entered upon its seventeenth year of existence. Under the direction of Dr. Robert L. Kelly it has labored successfully in behalf of improved standards of efficiency in liberal arts colleges. Recently the association has given attention to the question of the enlistment and training of college teachers. In the report of the Commission on Enlistment and Training of College Teachers the following statements are significant:

"The enlistment of prospective college teachers is far too important to leave to chance or to undirected student initiative." "The first duty of a college president is the maintenance of a staff of good teachers, and the most active phase of this duty is the filling of vacancies." "The enlistment of college teachers means, in the main, the enlistment of college students before they graduate from college for the career of college teaching." The commission therefore plans to ascertain certain things with regard to the graduates of each college which is a member of this association: First, "the actual number of members of each of the last 10 graduating classes who are engaged in or preparing for college teaching and the percentage of the class represented by this number; and, second, the actual number of persons in the upper quarter of each of the same 10 classes who are engaged in or preparing for college teaching, and the percentage of those in the upper quarter of the class represented by this number."

In the association's study of "The Efficient College," the typical institution was one enrolling 1,000 students. As a large number of the constituent colleges of the association have enrollments of 500 or less, it was decided to make a careful investigation of "The Smaller College." This investigation will cover the following questions: "Educational policy, organization and administration, personnel, the 'raw material' (student supply) and the 'product' (alumni), instructional facilities and techniques, physical plant, financial situation and needs, also student life, religious life, personnel guidance, extracurricular activities, enrollment trends, and special activities."

LIBERAL ARTS COLLEGE MOVEMENT

In view of the recent tendencies which appear to challenge the established prestige of the liberal arts college, considerable activity has been aroused by the friends of liberal education in order to devise means by which the strength and influence of the liberal college may be maintained.

Consequently a conference of the representatives of 278 liberal arts colleges was called in Chicago, March 18–20, 1930. As a result of a preliminary study made by President A. N. Ward, of Western

Maryland College, attention was called to the need for a more adequate support of the rank and file of liberal arts colleges which are in a position to relieve the pressure of heavy enrollments in the larger colleges and universities. This involves largely the equalizing of support of liberal arts colleges, a more equitable distribution of endowment funds among the large group of smaller colleges as compared with the heavy endowments of a small group of liberal arts institutions.

This significant conference has been described in detail in the work entitled "The Liberal Arts College Movement," edited by Archie M. Palmer, associate secretary of the Association of American Colleges. Among the more important duties of the leaders of this movement are "to set forth the place of the college of liberal arts in higher education in the United States," and to "cooperate with colleges approved by the movement in securing funds adequate to their needs." It has been estimated that at least $1,000,000,000 will be required to meet the needs of the majority of liberal arts colleges in order that they may render the maximum service.

THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

This organization, which came into existence at nearly the same time as the Association of American Colleges 17 years ago, has to-day a membership of 7,986. As a national agency for the protection of the interests of college teachers and for promoting their professional welfare, the association has greatly strengthened the college teaching profession and added to its educational efficiency through its activities in behalf of security of tenure, academic freedom, pension and insurance systems, and improved economic conditions of college teachers. It has also encouraged research among teachers.

The secretary, Prof. H. W. Tyler, announces that the association has just begun a new investigation of the tenure of college teachers. This will include a study of types of contracts used, customary length of tenure, and other conditions relating to the question, as well as the nature of the organizations controlling existing systems.

The association has dealt with 54 cases relating to academic freedom and tenure in 1928 and 1929, and has also given counsel on request to university officers who were desirous of utilizing the best procedure in making faculty readjustments.

At the seventeenth annual meeting held in December, 1930, the association passed an important measure directed against the entanglement of college officials and teachers in activities such as propaganda in behalf of public utilities. The effect of this measure is to require full publicity as to the names of both parties concerned

in such affairs, and to make public the fact that compensation is being paid to the college officials by the other party or parties.

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN

This association is entering upon its fiftieth year of existence. It is now undertaking, under the direction of Dr. Katherine McHale, the executive and educational secretary of the association, a study of the changes and experiments that have been undertaken in recent years in liberal arts colleges. This study, which is a part of a program of research information service in secondary and collegiate education, will cover three fields: Care and direction of students, curriculum and instruction, and organization and administration. Already a study of 36 colleges has been made, particularly with reference to the current changes that have influence on the student's life. It is expected that this study will be completed in two years. The association has also recently published, among other bulletins, a Study of College Entrance Requirements, by Miss Carrie Mae Probst, of Goucher College. This includes an analysis of the entrance requirements of 14 representative women's colleges, 4 coeducational colleges, and 5 universities. The association is also beginning a cooperative study of Deans of Women in Institutions of Higher Learning. It is also setting up a more objective technique as a basis for considering the place of women on faculties and student bodies in colleges and universities. Direction is also being given to the thought that women's colleges, having passed the day when they must justify their right to compete on the same intellectual basis with men's colleges, have the right as well as the duty to render a special service through leadership in those fields bearing on human relations and the family.

THE ASSOCIATION OF AMERICAN UNIVERSITIES

This association has given special attention in its conferences to matters improving the quality of graduate instruction. Nevertheless it does not attempt to standardize graduate schools.

In the report of the thirty-first annual conference, Dr. Adam Leroy Jones, of the committee on classification of universities and colleges, calls attention to a memorandum of procedure which is advised for institutions seeking approval of the association for inclusion in its accepted list. The report also announces the association's adhesion to the principles and standards set up by the American Council on Education. It also recommends to the various regional and national standardizing agencies a series of principles and minimum requirements which should be observed and considered in the accrediting of colleges.

One of the association's most important recommendations is that referring to foreign-language requirements for higher degrees.

1. We regard a knowledge of foreign languages as indispensable to the pursuit of research in all fields. Hence candidates for the doctorate of philosophy may reasonably be required to have a working knowledge of one or more foreign languages.

2. Since much of the dissatisfaction of present foreign-language requirements in graduate schools is traceable to inflexible general requirements and methods of administration, we recommend that the administration of these requirements, like that of other requirements in special fields, be left to the determination of departments or divisions concerned.

THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES

This association has given considerable attention recently to a redefining of its purposes. In this connection Pres. W. B. Bizzell suggested the following questions as the basis for a new program: Sources of revenue for maintenance; educational policies of the National Government as related to the educational problems of the different States; relation of the State university to other State institutions; organization for efficiency; improving the quality of instruction and measuring the results of educational accomplishment; administration of research; student activities, and adult education.

THE ASSOCIATION OF LAND-GRANT COLLEGES AND UNIVERSITIES

The discussion of the activities of this organization has been included in the chapter on National Surveys of the Office of Education, in connection with the report of the Land-Grant College Survey.

THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES

This organization, which came into existence following the call of President George F. Zook in 1920, has served to promote the development of the large group of junior colleges that now form an important phase in our educational system. The membership at the beginning of 1930 included 200 colleges located in every State but five and in the District of Columbia. The definition of the junior college as given in the 1930 report on standards is as follows:

The junior college, as at present constituted, comprises several forms of organization; first, a 2-year institution embracing two years of collegiate work in advance of the completion of what is ordinarily termed the twelfth grade of an accredited secondary school; secondly, the institution embracing

two years of standard collegiate work integrated with one or more contiguous years of fully accredited high-school work administered as a single unit. The aims of the curriculum in either case are to meet the needs of the student for maximum growth and development, to further his social maturity, and to enable him to make his greatest contribution as a member of society.

The association has not attempted to rate schools of its group, but has formulated standards which will assist in molding a "proper sentiment" for the junior college. It expects accrediting will be undertaken through existing agencies. Junior college standards are set up in nearly two-thirds of the State departments of education and by a number of State universities. The only accrediting organizations that have set up standards for junior colleges are the American Council on Education, the Association of Colleges and Secondary Schools of the Southern States, the North Central Association of Colleges and Secondary Schools, and the Northwest Association of Secondary and Higher Schools. The Association of Colleges and Secondary Schools of the Middle States and Maryland adopted in 1927 the standards recommended by the American Council on Education, but it has not accredited any junior colleges up to the present time.

THE NATIONAL EDUCATION ASSOCIATION

This association has studied, through the committees on secondary education and professional and higher education, the problems connected with the articulation of secondary and higher education. The work of these committees is reported in the Seventh Yearbook of the Department of Superintendence, 1929. It has ascertained the principal difficulties which public schools encounter in their articulation with the colleges, the effects of entrance requirements on the curriculum procedures in local school systems, the attitude of secondary school pupils toward college entrance subjects as compared with other subjects, the effect of the junior college on the articulation problem, and other questions of similar importance.

From the standpoint of professional and higher education it has redefined articulation in its several aspects. It has also defined the liberal arts college, the American university, and its component divisions or schools. The several methods of selecting college students have been classified, and the devices that have been set up for improvement of student adjustment as relates to articulation have been discussed.

COORDINATING AGENCIES FOR GRADUATE WORK AND RESEARCH

The stimulation and coordination of the many phases of research activity, including graduate work, has occupied the attention of a number of organizations that give the whole or a part of their time

to such work. The American Association for the Advancement of Science and its associated societies have been of considerable service to graduate students and research workers through their use of doctor's dissertations and research contributions of college officials in their regular programs. It has been estimated that approximately one-fifth of the papers presented at association section meetings are from these sources.

The Smithsonian Institution has on numerous occasions stimulated research in universities through special grants, and through its International Exchange Service it exchanges scientific, literary, and governmental publications with foreign governments, institutions, and investigators. It publishes the International Catalogue of Scientific Literature. It also loans works of value to those engaged in certain fields of research.

THE NATIONAL RESEARCH COUNCIL

The National Research Council was established in 1916 by the National Academy of Sciences and was put on a permanent basis in 1918 by President Wilson. The council includes in its membership the representatives of over 70 scientific and technical societies, Government bureaus, and other research organizations, and is one of the largest and most highly organized research institutions in the world. It has devoted its attention primarily to the stimulation and coordination of research in two group fields. The first includes science and technology, engineering and industrial research, chemistry and chemical technology, geology and geography, the medical sciences, biology and agriculture, and anthropology and psychology; the second group is concerned with Federal relations, State relations, and educational relations pertaining to research.

The council through its organization is enabled to bring into cooperation the forces of business and industry with university and other research agencies in the fields aforementioned. Through generous gifts from various sources the council has maintained a large number of postdoctoral research fellowships. One of the outstanding features of the organization of the Research Council is the bringing together each year of outstanding research men of the country to be chairmen of the several technical divisions of the council. This rotation among the leaders of research as coordinators for their special fields has proven of great value in bringing research to a high plane of efficiency.

SOCIAL SCIENCE RESEARCH COUNCIL

The Social Science Research Council has been in existence since 1923. It has promoted research studies of the activities of human

beings in those divisions coming under the purview of the constituent organizations. The members of the council include the American Anthropological Association, the American Science Association, the American Historical Association, the American Political Science Association, the American Psychological Association, the American Sociological Society, the American Statistical Association, and certain members at large. Committees on regional research have been set up experimentally, one for the development of social sciences on the Pacific coast, the other for the southern region. The council has awarded 86 social science fellowships to members of the teaching staffs of a large number of universities and colleges, and many of the proposed studies will be prosecuted in foreign countries. Among the many studies being stimulated by the council are business research, corporate relations, crime, the family, industrial relations, international relations, interracial relations, philanthropic financing, population, public administration, social and economic research in agriculture, and social statistics.

AMERICAN COUNCIL OF LEARNED SOCIETIES

This council, established in 1919, represents the United States in the International Union of Academies. The council is devoted to the advancement of humanistic sciences. The following societies are members of the council: American Philosophical Society, American Academy of Arts and Sciences, American Antiquarian Society, American Oriental Society, American Philological Association, Archeological Institute of America, Society of Biblical Literature and Exegesis, Modern Language Association of America, American Historical Association, American Economic Association, American Philosophical Association, American Anthropological Association, American Political Science Association, Bibliographical Society of America, American Sociological Society, History of Science Society, Linguistic Society of America, and Medieval Academy of America.

The council has endeavored to bring together the elements involved in developing and handling effectively research programs in the fields covered by its members. Among its principal activities include the assisting in the preparation of a Corpus Vasorum Antiquorum, a Dictionary of American Biography, and the establishment of the publication Speculum, now the organ of the Medieval Academy of America. The council has also published a comprehensive survey of American learned societies, which gives their history, resources, and principal activities. It also has administered a number of grants in aid of research to professors and instructors in American colleges.

The council has also planned a program of study of the cultural relations between Europe and America. It has recently under-

taken an investigation of the organization of and facilities for instruction in Chinese and in related subjects in the world, and it hopes to stimulate greater interest in far oriental cultures in higher educational institutions.

THE SCIENTIFIC WORK OF THE DEPARTMENT OF AGRICULTURE

The largest and most highly organized agency for coordinating and stimulating research work in the applied sciences in relation to agriculture, home economics, and rural life in general in universities and colleges is that under the administration of the director of scientific work in the Department of Agriculture. This organization coordinates the research programs in all the bureaus and offices of the department, particularly through the Office of Experiment Stations with the 50 or more experiment stations connected with the land-grant colleges and universities. A more complete statement regarding the work of the experiment stations is found in the review of the land-grant college survey included in the chapter on National Surveys of the Office of Education.

INTEGRATION EFFECTIVE

In addition to these major organizations there are a large number of research organizations of different types which function in other fields which serve the universities and colleges.

Although more in the background, this vast amount of research in all lines of human thought and activity carried on in American universities and colleges has been and will continue to be one of the main sources of the intellectual and material development of the Nation.

It is apparent from the foregoing discussion that the colleges and universities of the country are linked together in a network of organizations which tend to promote cooperation and which aid in the strengthening of scholastic standards in nearly every field. These organizations are also indicative of the almost unlimited scope of subject matter with which higher education has to deal and of the many difficulties involved in the elaboration of a suitable content for instructional purposes. Nevertheless, it is through these voluntary bonds that more than a thousand colleges and universities work together in comparative harmony. The migration of students from institution to institution is a relatively simple matter throughout the length and breadth of the land, and educational equivalence in subject matter values is generally accepted by all institutions on accredited lists. The interchange of professors for temporary periods appears to grow in favor as a stimulation to scholarship and also brings breadth as well as greater unity to higher education in general.

But these organizations and devices do not always touch many higher educational problems largely local or regional in character which demand scientific study and action. Such problems have come to be handled in many cases through institutional surveys.

HIGHER EDUCATIONAL SURVEYS

During the past decade approximately 15 surveys of State systems of higher education have been conducted under the auspices of the United States Office of Education, private foundations, and other special groups. During the earlier part of the decade surveys were limited largely to individual institutions or those coming within a public or private system within a State. The utility of these surveys has led to their development on a nation-wide basis. Among these surveys should be mentioned that of engineering education, conducted between 1924 and 1929 by the Society for the Promotion of Engineering Education, under the direction of W. E. Wickenden and H. P. Hammond, involving over 100 engineering schools and colleges; the study of athletics in American colleges, conducted in 1929 by Dr. Howard J. Savage; the survey of higher education for the United Lutheran Church in America, conducted by R. J. Leonard, E. S. Evenden, and F. B. O'Rear, involving a study of 16 colleges.

The following surveys have been conducted since 1928, under the direction of Dr. Floyd W. Reeves and associates, of the University of Chicago: A survey of Syracuse University; a survey of 34 colleges affiliated with the Board of Education of the Methodist Episcopal Church, in addition to 6 junior colleges, and 17 negro colleges affiliated with the Boards of Education of the Northern and Southern Methodist Church; a survey of 16 colleges and universities affiliated with the Board of Education of the Disciples Church [4]; and a survey of Baptist educational institutions in Kentucky. Other institutional surveys conducted by this group include Center College, Kentucky; Valparaiso University, Indiana; Northland College, Wisconsin; and Geneva College, Pennsylvania; the survey of the latter was conducted by Prof. John D. Russell, of the University of Chicago. Doctor Reeves, with the cooperation of 6 assistants and 30 part-time aides, began in October, 1930, a comprehensive survey of the University of Chicago.

A survey of Brown University was also conducted in 1930, by Samuel P. Capen, Luther Pfahler Eisenhart, and Guy Stanton Ford.

In 1930 the Society for the Promotion of Engineering Education, with the cooperation of the Office of Education, undertook a new survey of the engineering colleges that had participated in the

[4] Described in College Organization and Administration, published by Board of Education, Disciples of Christ, Indianapolis, Ind.

survey of 1924, in order to secure a measure of the progress which had been made in engineering education. Some of the findings of this report are given in the chapter on engineering education.

RECENT SURVEYS OF THE OFFICE OF EDUCATION

In 1927 the Office of Education began a survey of 79 negro colleges and universities upon the request of the institutions themselves. This survey was completed in 1928.

In 1927 the office also began work on the nation-wide survey of land-grant colleges and universities, 69 in number. This was completed in 1930.

Full summary reports of both of these surveys are contained in the chapter on National Surveys of the Office of Education.

On September 7, 1929, Gov. Harvey Parnell, of Arkansas, requested the United States Commissioner of Education to undertake a survey of the institutions of higher education of that State.

The commissioner named a survey commission consisting of Dean Withers, of New York University; President Bizzell, of the University of Oklahoma; and Arthur J. Klein, chief of the Division of Colleges and Professional Schools of the Office of Education, who completed the survey in March, 1930. The institutions surveyed consisted of the State University of Arkansas at Fayetteville, the two State teachers colleges at Conway and Arkadelphia, the Polytechnic Institute at Russellville, and the three agricultural and mechanical colleges at Monticello, Jonesboro, and Magnolia. The purpose of the survey was to recommend a coordinated program of higher education for Arkansas. To accomplish this an attempt was made to determine the proper functions of each of the seven institutions named above. A plan for the coordination of these institutions with the State department of education was recommended and at least some of these recommendations have already been incorporated in the State law of Arkansas.

OTHER HIGHER EDUCATIONAL INVESTIGATIONS

In addition to the surveys already indicated, approximately 250 colleges undertook private or self surveys in 1929, and 148 colleges likewise undertook such surveys in 1930. Although the scope of some of these surveys may have been limited, it is evident that the demand for revaluation of educational aims and procedures has reached a large group of our colleges.

In 1930 Dr. C. C. McCracken, now president of Connecticut Agricultural College, completed a study of the colleges under the Board of Christian Education of the Presbyterian Church of the

United States of America. In a strict sense this was not a survey but the development of a cooperative research program among the institutions concerned. The new program suggested includes a reorganization of the government of the 50 colleges under this board, dividing them into eight groups. Each of these groups will have a central college in which a certain amount of graduate and theological training will be emphasized. The other colleges of a particular group will fit their programs into relation with the program of the central college, creating thus a carefully integrated program and avoiding unnecessary duplication of effort. The church may then concentrate more particularly on those phases of education in which the church or the constituency of the church might be interested. This plan will tend to conserve the independence of the Presbyterian colleges, yet at the same time provide and require such cooperation and organization that the colleges will be on a sound educational and financial basis.

PART II. EMERGING TYPES OF COLLEGES AND UNIVERSITIES

In the foregoing section attention has been called to the objective or external aspects of the higher educational situation in the United States and the principal means by which adjustments or revaluations are made through outside organizations.

However, the internal aspect of adjustment may be more clearly shown by an analysis of the plans of typical colleges and the numerous devices by which students are selected and distributed through the more or less complicated mechanism of college or university organization. The great problem in higher education in recent years has been what to do with the student after enrollment; how do colleges present an educational menu that is appetizing as well as wholesome, whether it be table d'hôte or à la carte? Does the student follow the cafeteria procedure in educational food selection or is he waited upon by a retinue of table functionaries who are available to adjust the meal in delicate fashion to the appetite and, if this is lacking, to suggest or furnish suitable appetizers?

PERIOD OF EXPERIMENTATION

The decade has witnessed a growth of experiments which bear on student adjustments. In the effort to improve selection and to obtain a maximum of scholarly achievement it has been the aim of a score or more colleges to test new procedures in curriculum organization, educational orientation, teaching methods, and in housing.

A characteristic feature of curriculum reorganization in many of the new educational programs is the concentration of college work into four or five major divisions of work, each division serving to integrate and bring into harmonious cooperation the work of those departments that naturally belong to a major division. Such a program may be illustrated by the new plans of the University of Chicago, Colgate University, Cornell College, and those for the new Bennington College.

The new plan of the University of Chicago is as follows:

> The university will comprise four upper divisions, including the humanities, social sciences, physical sciences, and biological sciences, and two groups of professional schools which articulate with the college. All students must enter the college for a general education, leave by passing comprehensive examinations and enter one of the four upper divisions or professional schools or be granted an honorable and dignified exit. The comprehensive examination may be taken at any time the student feels competent.

Once in the upper division, the student will graduate by passing a comprehensive examination.

> The professional schools will award all professional degrees and the divisions will be responsible for the award of all nonprofessional degrees. The bachelor's, master's, and doctor's degrees are to be granted on the recommendation of the entire division and not by one department. * * * By the abolition of credits emphasis will be placed on the knowledge of the subject matter rather than on the acquisition of credits. The successful evolution of this plan will continue the increased stress now being made on achievement.

The Colgate University plan is based upon a successful experimental first-year survey course in philosophy and religion, and the university has added four more first-year survey courses, including the physical sciences, the biological sciences, the social sciences, and the fine arts. These survey courses constitute the basic elements of five of six schools. The sixth school, which is concerned with languages, does not have a survey course, as languages do not lend themselves to such a procedure. The freshman student, after completing the five required survey courses, chooses one of the six schools for concentration in the remaining years of the college program; however, this does not mean that the student is limited to the work of one school. The new plan has the advantage of bringing greater coherence between the departments constituting each school as compared with the lack of coordination between the 20 or 30 departments under the old plan.

The program of Cornell College, Iowa, emphasizes general education during the first two years of the course; the student must then take at least eight hours each in the following fields of concentration: Social sciences, natural sciences, fine arts, language and literature, philosophy and religion.

The study plan of Bennington College, a school for women, will require students to become acquainted during the first two years with the significance of all four of the major fields—science, literature, social studies, and fine arts. The tool courses, such as mathematics and foreign languages, will be prescribed only if needed in the major field. In the last two years those who have ability will be allowed to concentrate in a major field. Of interest is the plan for housing students in dwellings holding 20 students each. Each house will have a detached suite for a faculty member which will serve as a social center for other faculty members.

Another development in curriculum reorganization is that made in 1930 at George Washington University. This plan is based upon a 2-year junior college, and is followed by a 3-year senior college program, leading directly to the master's degree. The A. B. degree is granted as usual at the end of the fourth year. The departments of the senior college are grouped into four major divisions: Languages and literature, mathematics and physical science, natural sciences, and social sciences. This plan limits the control of the work leading to the Ph. D. degree to the graduate school.

Lafayette College has developed within the past decade a phase of liberal arts instruction in the fundamental disciplines in political science and law which serves to give a fundamental motivation in the subjects required in this field. In the department of government and law, instruction is designed to prepare the potential citizen for intelligent participation as voter, taxpayer, or public official in the complex political life of the day and to give to those intending to enter law school a preliminary training in legal analysis and an introduction to political and social problems. This department is housed in a classic building designed for the purpose, known as the Hall of Civil Rights, a gift in 1930 by Fred Morgan Kirby. The building includes a departmental library in government and law, with adequate equipment for laboratory methods in these fields. It also includes a political science museum which assists the student in visualizing the activities of the Government. The classroom equipment allows for the greatest comfort and freedom of the student in carrying out his class projects. As a further incentive to activity the college is emphasizing the relations of the United States with Canada and the Republics to the south, as it is in these countries nearest to us that the student will find new opportunities to utilize his knowledge.

The concentration of related departmental activity toward specific ends is also applied in colleges for women. In Vassar College, the departments of botany, chemistry, child study, physiology and hygiene, and psychology are used as the basis for the study of

euthenics, which has for its purpose the correlation of modern sciences bearing on problems of living, particularly the home and family. A similar program centering on human relations and the family has been developed at Mills College.

Rollins College, Winter Park, Fla., since 1926 has focused attention on improved methods of college instruction. In addition to limiting its enrollment to 700 students, it has enlarged its faculty so that there is a ratio of less than 10 students to a professor.

The experimental college of the University of Wisconsin, which has been under the direction of Dr. Alexander Meiklejohn since the fall of 1927, has just completed the last year of its program. The principal endeavor of this experiment has been to discover means of improving instruction for freshmen and sophomores. In the teaching methods it has emphasized procedures that are based upon the independent work of the student, and it has stressed the careful study of civilization as a whole during its most significant periods. It is the plan of the university authorities to make in the near future a critical evaluation of this experiment, with the purpose of giving permanence to those procedures that have proven themselves to be of value.

The new plan at Columbia College, Columbia University, has now been in operation for more than three years. It is based upon a very careful selection of the student through thorough placement examinations and achievement tests. The student is then introduced during the first two years of his college course to a careful study of the great problems of education, religion, economics, government, and social procedure that he must meet in American life through a very broad and inclusive course in contemporary civilization. With these beginnings, according to Dean Hawkes:

> The whole collegiate curriculum is developed toward the end of affording each student a chance, not only to lay a solid foundation but to build a superstructure, the architecture of which conforms to his own individual ambition, ability, and temperament.

The Princeton plan of 1924 has also completed a 4-year cycle and is on its second cycle. The program, according to Dean Eisenhart, begins its significant features in the junior year, at the beginning of which the student selects a field of concentration in which the major part of his study will be done in the next two years. Having taken two courses each term in this department and two other courses for which he is qualified, the student must make an individual study of a subject in the field of concentration aside from the courses. A comprehensive examination must then be passed in the field of concentration. Although there has been some change in the operation of the preceptional system of instruction, attention is called to the plan of independent study.

The preceptorial conference gives the student an opportunity to learn how to read in connection with the course. In his independent reading he makes use of the same process, but it is for him to coordinate the material without the aid of lectures which to a greater or less extent supply this element in the case of courses. It is intended that this process shall develop initiative and a sense of responsibility in the student.

A student's knowledge of his subject is tested by the regular examinations in his courses of the first term each year, by a general examination at the end of junior year upon the work of the year, and by a comprehensive examination at the end of senior year upon the work of both years. These examinations are planned so as to determine not only a student's knowledge of detail but also his appreciation of the broader aspects of his subject and the relations of the various parts. The papers written in connection with his independent study during each of the two years, mentioned above, are counted as part of the examinatoin at the end of the year. By these two means we are enabled to determine more adequately the degree of a student's mastery in his chosen field of study.

There is another aspect of the question which deserves comment. Whereas formerly the course was the unit of instruction and there was no consideration of the effect of a combination of the courses in the development of the individual student, now the whole of a student's work in his department is the unit, and the question of the education of the individual is paramount.[5]

The Harvard house plan is another means to the end of helping students to take their education seriously, not by diminishing non-academic activities but by changing the atmosphere and improving the interest of the student in scholarly pursuits until there is a proper balance beween these apparently divergent interests. The plan calls for seven houses, which will be required to care for all upper classmen who may desire to live in residence. Some of these are nearly completed and are models of efficiency and comfort.

President Lowell explains the new student houses as—

attempts to form communities which will embody and promote the spirit that we have been trying to introduce into the college. We believe they will make the undergraduates feel themselves members of an association whose object is their education, or rather providing them with an environment conducive to their educating themselves; a place where scholars may not only be listened to in the classroom but conversed with informally, an atmosphere challenging discussion and thought on the part of all capable of profiting by a university education.

Another type of educational housing has just been proposed as a part of the new plans for Brown University. This refers to the creation of departmental communities:

These establishments, which are designated laboratories in the case of the scientific departments, should include a departmental library as the central feature, offices and studies for the staff, seminar and conference rooms, classrooms large enough for advanced classes, and such apparatus, ornaments, and illustrative materials as tend to create an atmosphere appropriate to the subjects and inviting to the student. Here they find not only the books, materials,

[5] Princeton Alumni Weekly, Jan. 16, 1931.

and an atmosphere conducive to study but also intimate contacts and association with professors and graduate students which it is a fundamental policy of Brown to promote.[6]

STUDENT ADJUSTMENT IN TYPICAL INSTITUTIONS

An interesting study of the development of administrative organizations as related to student adjustment in typical colleges and universities recently has been completed by Dr. Harold F. Cotterman, of the University of Maryland.[7] Following a general preliminary survey, 63 institutions were studied, including publicly and privately controlled schools, junior colleges, coeducational institutions, men's colleges, women's colleges, and other special types. From this group the following schools were intensively studied. Antioch College; Columbia College; Columbia University; Dartmouth College; the Experimental College, University of Wisconsin; Harvard College, Harvard University; Junior College of Kansas City, Mo.; Johns Hopkins University; Ohio State University; Princeton University; Reed College; Sarah Lawrence College; Scripps College; Stanford University; Stephens College; Swarthmore College; Tufts College; University of Alabama; University of Chicago; University of Cincinnati; University of Oregon; and Yale University. The findings of this study from the standpoint of organization for student adjustment indicate that at least seven types of institutions have evolved, namely, the freshman-year type, the lower division-upper division type, the junior college type, the senior college university type, the cooperative employment type, the separate divisions type, and the independent college-university type.

Colleges of the freshman-year type are found at Harvard University, Yale University, and Tufts College. These colleges and others of the same type make provisions for student adjustment in the freshman year by providing special officers, special deans, special faculties, personal advisers, as well as different methods of teaching. A careful study of freshman problems is made in order to advise students in a wise selection of programs and courses for the succeeding years.

The lower division-upper division type, represented by Stanford University, Reed College, University of Chicago, University of Minnesota, and the University of Oregon, tends to place student adjustment on the foundation of the secondary-school program, with college education as the continuation of a program begun well down in the secondary-school period. In this type the lower two years

[6] Bulletin of Brown University, October, 1930.

[7] Student Adjustment in Recent Programs of Higher Education. Unpublished dissertation, the American University, Washington, D. C., 1930.

of college life are largely preparatory to the more professional and intensive programs of the upper two years' work.

The junior-college type, such as the Junior College of Kansas City, Stephens College, and Sarah Lawrence College, presents the possibilities of limiting the instruction to the first two years of the college level or the lower division type of instruction. It lays the basis for the adjustment of students either with the more advanced work as offered in upper division courses, or directly with the semiprofessions or professions, by giving the essentials of preprofessional training without the usual degrees. It also provides terminal cultural programs for those who wish to conclude their college work at the level of the second year of college.

The senior college-university type represents an organization devoting most of its energies and resources to senior-college work integrated with a high order of advanced professional and graduate work for carefully selected students. Institutions that have been anticipating or testing a program of this type include Stanford University and Johns Hopkins University.

In the cooperative employment type, such as the University of Cincinnati, Antioch College, and the College of Medical Evangelists, emphasis is given to student participation in the carefully coordinated practical affairs of life either as a part of his professional training or as a special discipline, under the immediate supervision of practical men, in addition to theoretical study, both as part of the professional and cultural phases of the program.

The separate division type, as represented by a number of State universities, appears to make the least provision for adjustment machinery; however, in certain cases there is promise of a change toward a system of interrelated divisions or other type of adjustment organization.

The independent college-university type, represented by the Claremont Colleges, Harvard University through its residence halls, and the experimental college of the University of Wisconsin, extends advantages and privileges of the small residential college to other units of the university, and combines these with the other advantages that come with a large institution.

ADJUSTMENT THROUGH ENTRANCE REQUIREMENTS

Doctor Cotterman's study also indicates how the manifold aspects of college entrance requirements are being used more and more to relate the student in the most advantageous manner to the college program. Adjustment proceeds on the basis of the "allocation of the variants in human talent to the many channels and levels of life

for which higher education may be beneficial through flexibility in entrance requirements and variation in institutional requirements to meet the difference in institutional purpose."

Adjustment is facilitated when there is sufficient flexibility in the articulation of higher education with secondary-school programs to permit considerable exploration in secondary education without closing the possibility of pursuing advanced generalized and specialized college programs.

Adjustment is also facilitated by the elimination of waste of time through placement and proficiency tests, through use of comprehensive high-school performance records as systematic personnel data in the counseling of college students.

ADJUSTMENT BY COLLEGE YEARS

It appears that each of the four years of college tend to have specific functions of their own as relates to the adjustment of the student.

The freshman year.—Among the more important adjustment functions of the freshman year that appear are the following: The freshman year is a period of transition from the more or less well-taught and supervised work of the high school to the more independent and more self-directed work of the succeeding years of college. It provides by the careful selection and encouragement of the faculty at this level a higher type of instruction, thus aiding in adjustment. It provides for subject matter which introduces and unfolds to the student the various fields of learning and affords opportunity for him to discover the unity and interrelatedness of the various classifications of the world's knowledge, which by its nature arouses interest in more detailed examination of some of those fields in the succeeding college years. It prepares for work of the later college years through courses furnishing the tools or symbols of higher learning. It gives an opportunity to explore a field for concentration or for professional training through provision for election in a desired direction. It gives the foundation as far as possible for the choice of a wise program of studies. It helps the student to become acquainted with the college mode and level of work and with himself as a college worker. It serves to eliminate students who are unfit for college.

The freshman year also provides a period for determining future scholastic privileges, inasmuch as honors courses and similar privileges are usually based on the quality of work the student does in the first two years of college. It provides for as much opportunity for self-direction as possible in order that it may become the student's permanent mode of procedure. It permits the discovery of gifted

students and weak students in order that provision in the way of methods of study, appropriate loads, and individual programs may be made for such students early in their college careers. It also provides for making the freshmen feel at home and for furnishing them with high-grade faculty advisers who study their individual characteristics, their ambitions, abilities, special aptitudes, and other qualifications with a view of assisting them in their problems of college work and life. It is the opening year of a systematic cumulative personnel record for each student. It makes provision for rich cultural contacts and high-grade associational living.

The sophomore year.—The adjustment functions of the sophomore year appear as follows: It marks the period for the completion of articulation with secondary schools as well as for the completion of lower division work. It generally increases scholastic difficulty as compared with that of the freshman year. It tends to set the pattern of the student's scholarship. It serves in part as a basis for the determination of future scholarship privileges. It provides a time for the elimination of students not fit by nature or inclination to be advanced to higher college levels. It provides for the pursuance of courses of study sequential to the vision-giving courses of the freshman year. It provides for free electives with avocational interests in view. This year also provides contacts with advisers who are in sympathy with the student's major interests and who will guide the student in terms of those interests if courses are terminal, or through proper rules of concentration and distribution if the student is to continue through college. It provides a final period for limited specialization or cultural study for those for whom the sophomore year college courses are terminal. It begins preparation in the requirements of major departments of the upper years of college; hence is a period for the beginning of specialization and the study of more advanced methods of university work.

The junior and senior years.—The outstanding adjustment functions of the junior and senior years may be grouped as follows:

These years provide for the pursuit of a major interest thoroughly, systematically, with unity, and to a considerable degree of mastery, either along professional lines or in a field of scholarly investigation or speculation. They provide preparation for advanced professional and research work. They provide opportunity for the development and pursuit of avocational interests through provisions for distribution, free electives, and self-directed programs of study. They provide, through contact with advisers in major departments who possess a thorough appreciation of the need and nature of the various phases of higher education, for the consideration and election of sound programs of study for the students of these years.

These years lend particularly to development of depth of thought, breadth of vision, ability to integrate knowledge, capacity for critical analysis, and promote sound standards and tastes in living through contacts in classrooms, in small group or individual conferences, in seminars, in colloquiums, in residence halls, and in campus life generally, and by means of such devices as preceptorial methods, term papers, theses, reading courses, comprehensive examinations, senior fellowships, and the like. They provide opportunity for the development of habits of self-direction both in routine and in creative work.

The junior and senior years promote the development of gifted students through provision for large amounts of freedom and self-direction in the selection and pursuit of studies and through special methods of appropriate stimulation. They provide for a wide range of student focus from the professional and advanced research points of view and from the point of view of appropriate cultural concomitants. In these years there is a maintenance of standards of scholarships in both professional and cultural work appropriate to these levels of college effort.

SPECIAL PROVISIONS FOR GIFTED STUDENTS

In general, provisions for the adjustment of gifted students are increasing.

Many provisions for stimulating gifted students are making their appearance in higher education beginning with the consideration of entrance requirements.

Honors courses, independent study plans, and self-directed programs of study hold out special opportunities to gifted students for self-realization along lines of special aptitudes.

Where a high all-around level of scholarship is required for honors privileges, persons gifted in but one line may not receive the stimulation necessary for the development of their particular talent.

Honors courses and the special stimulation provided in connection with them are having a decidedly good effect on both student and faculty at Swarthmore College, where a special study is being made of such effects, and students as a whole in after life are grateful for the privileges the self-directed study plan gives them.

There is great need in a wealthy democracy such as the United States for an arrangement in higher education which will stimulate superior minds to the highest possible development and which in no sense will hold such minds to the slower paces of high average and average groups.

Privileges of completing college in three years, of reducing total requirements for graduation or of increasing course credits for

thorough, high-grade work, and of trying for the usual kinds of graduation honors play parts in stimulating gifted students.

Doctor Cotterman's study also brings out the adjustment aspects of instructional effort, as well as of advanced professional and research training.

This study is indicative of the great number of means and devices which may be used to facilitate the student's progress in college so that he may relate himself in the most satisfactory manner to the educational programs which may be offered.

RECENT DECISIONS AND ENACTMENTS TOUCHING HIGHER EDUCATION

Military training at the land-grant colleges.—The question of required military training in the land-grant colleges has become controversial in recent years, because of a certain ambiguity in the original act. In order to clarify this matter, the Attorney General, upon request of the Secretary of the Interior, gave his official opinion as to whether agricultural colleges having grants under the act of July 2, 1862, and amendatory acts are required to include military tactics among the compulsory courses of study or whether they may simply offer this subject as an elective course. After carefully reviewing its legal aspects, the Attorney General included the following statement in his reply:

> I therefore advise you that you are justified in considering that an agricultural college which offers a proper substantial course in military tactics complies sufficiently with the requirements as to military tactics in the act of July 2, 1862, and the other acts above mentioned, even though the students at that institution are not compelled to take that course.

An important judicial decision on the junior college.—According to a recent study by E. O. Brothers,[8] only about one-fourth of the States have laws which legalize the junior college as an extension of the high school. Twenty States are reported as having junior colleges of this type. Doubtless greater opposition to this apparent expansion of the high school is due to the fact that it is the continuation of the work of a legally accepted institution. In several States the public junior colleges apparently have no legal authority for their establishment.

However, opposition against the operation of a junior college as a part of the public-school system was raised in Asheville, N. C. The board of education of Buncombe County and the school board of Asheville defended their right to maintain and operate the junior college and pay its expense of operation from the Asheville public-school fund. The superior court of Buncombe County took the posi-

[8] Reported in School Review, December, 1930.

tion that the junior college was not a part of the public-school system of North Carolina and forbade the maintenance and operation of the junior college out of the public-school fund of the city as a local tax school district.

The case was then brought before the supreme court of the State, which reversed the decision. The decision stated in part:

> It appears from the statement of facts * * * that the predecessors of the defendants * * * established as part of an adequate and sufficient school system of public schools for the city of Asheville the junior college. That they had the power to establish and maintain said college in the exercise of their discretion it seems to us can not be questioned. * * * We are of the opinion that the defendants have the power, in the exercise of their discretion, to continue to operate the junior college heretofore established and maintained by their predecessor * * * certainly so long as they can do so without the levy of an additional tax for that specific purpose.

This decision is one of great importance in determining the legal status of the junior college as a part of the public-school system.

THE QUESTION OF THE RHODES WILL

For nearly a quarter of a century this will has provided for the selection of two Rhodes scholars from each State of the Union to attend Oxford University. Until recently scholars were selected annually from two of three groups of 16 States each, one group dropping out every third year by rotation. Certain influences in behalf of efficiency recently have succeeded in having the British Parliament modify the original provision by dividing the United States into eight groups of six States each, with four students to be chosen annually from each group. Such an arrangement makes possible, in fact, likely, the occasional passing of certain States in making appointments.

This has led to a protest on the part of some of the leading Rhodes scholars of this country, including President John J. Tigert, of the University of Florida, who vigorously protested against the new interpretation at the meeting of the National Association of State Universities in Washingon, December, 1930.

NEGRO HIGHER EDUCATION

The past decade has marked unusual development of negro higher education in the United States. This development has not been one merely in numbers but in increased growth of the factors which make for scholarship and service. There are 80 or more negro colleges and universities in the country which are giving the whole or part of their time to college work. These include 9 institutions under control of independent or private boards of trustees, 17 negro land-grant colleges, 31 universities and colleges under

white denominational church boards, 17 private colleges under negro denominational control, as well as a number of State teachers colleges and normal schools that are not land-grant colleges.

The negro colleges now are entering actively into a period of standardization and adjustment on the same basis as colleges and universities for whites. In 1927 West Virginia State College was accredited by the North Central Association of Colleges and Secondary Schools, and is the first negro college to achieve that distinction within the jurisdiction of that association. Howard University, Lincoln University, and Morgan College for a number of years have been on the accredited list of the Association of Colleges and Secondary Schools of the Middle States and Maryland.

In view of the lack of a fully recognized accrediting agency in the South having jurisdiction over negro colleges in that area, the Office of Education in 1928 asked the Association of Colleges and Secondary Schools of the Southern States to undertake the work of accrediting negro colleges within its area of control. The association gave a favorable answer to the request, and in June, 1930, a circular was sent to institutions of higher education for negroes in the South inviting them to request inspection with a view to eventual rating by the association. By December 15, 1930, 60 institutions had requested forms and 35 had filed complete reports. The committee on approval of negro schools of the Southern Association of Colleges and Secondary Schools includes H. M. Ivy, superintendent of schools, Meridian, Miss., chairman; J. Henry Highsmith, State supervisor public schools, Raleigh, N. C.; Dr. T. H. Jack, dean Emory University, Atlanta, Ga. At the annual meeting of the association in Atlanta on December 2, 1930, the executive committee of the association, on recommendation of the committee on approval of negro schools, began the work of accrediting.

HOWARD UNIVERSITY

A very significant milestone in the progress of negro higher education is the new plan of development of Howard University in Washington. Under the old plan the university lacked a recognized policy in its relation to the Federal Government. As this relationship had never been properly defined, it was difficult to determine a satisfactory financial program. Through efforts of President Mordecai W. Johnson, with the cooperation of officials of the Government, steps were taken to give the university a more definite status in its relation to the Government. As a result, in 1928 Congress authorized the granting of regular appropriations to Howard University, and at the instance of a special committee of Government and university officials and Members of Congress especially interested requested the preparation of an adequate educational and financial

program to be the basis for future cooperative relations between Congress and the trustees of the university. This plan was prepared in 1930 and adopted by all the authorities concerned. The carrying out of this plan should bring Howard University in the future to a ranking position among American universities and make it a national center of negro culture and intellectual achievement.

GRADUATE AND RESEARCH STUDY

The growth of graduate work as represented by growth in students and in the development of coordinating agencies has been discussed elsewhere in this chapter. However, attention is called at this point to the increasing influx of students in our graduate schools whose interests are primarily professional rather than those pertaining to pure research. This is exemplified by the great increase in the number of graduate students in education.

The graduate schools in some of our larger centers have come to recognize a new type of graduate student—the college-trained business man, or man of affairs, who finds it very advantageous to take graduate courses in special fields of interest just as the physician or surgeon takes his postgraduate courses in medicine. The interest of such men usually does not lie primarily in the direction of the advanced degree but in gaining new values which may be turned into practical use.

In harmony with this tendency, the Polytechnic Institute of Brooklyn has carefully developed within the past three years, a program of graduate education in engineering leading to the master's degree. The demand for this type of study has come not only from regular graduates of the institute, but from a large number of employed engineers in the metropolitan area of New York. Regular graduate school standards are applied, but President Kolbe has added to the attractiveness of this program by bringing in visiting professors of high talent from other colleges and engineering schools. One of the advantages of the evening graduate program is given by Prof. H. P. Hammond, of the institute, who says:

> It offers one important means of solving one of the greatest difficulties of engineering education, that of providing the means for advanced study to meet the increasing demands of professional engineering work without increasing the length of the undergraduate curriculum or the time the student must spend in residence—something which the majority of engineering students can not do.

Considerable discussion has taken place regarding the objectives or aims of graduate instruction in view of the large number of graduates who enter the field of college teaching. It is a question whether the Ph. D. degree or even the master's degree does not fit the individual more definitely for research work rather than for dissemi-

nating knowledge in the classroom. Much criticism has been directed against the alleged weaknesses in classroom instruction of teachers holding the doctorate degree.

With some of these questions in mind, the Office of Education is cooperating in a study of the objectives of graduate instruction, including also some of the different administrative procedures used in graduate schools with reference to advanced degrees. The opinion and views of a large number of college presidents, deans, and heads of college departments and graduates having the Ph. D. have been obtained regarding this matter. Although presenting a number of difficulties, it is hoped that this study will help to clarify our knowledge regarding the general purposes and practices of graduate education throughout the country.

NEW RESEARCH CENTERS FOR HIGHER EDUCATION STUDY

From the standpoint of college and university administration, the establishment of well-organized and permanent research centers for the study of higher educational problems at leading university centers has been a development which promises large returns.

Among the institutions conducting definite research programs in higher education may be mentioned the University of Minnesota, the University of Pittsburgh, the University of Chicago, Purdue University, Teachers College, Columbia University, Iowa State University, University of Oregon, and Ohio State University.[9]

One of the most comprehensive and far-reaching programs of research is that now in progress under Dr. H. A. Toops, of Ohio State University. This includes a continuous high school-college survey, conducted by the college of education of Ohio State University and the State Department of Education of Ohio. This survey will involve the measurement of the intelligence of all high-school students in the State of Ohio, the interpretation of their scholarship in terms of their intelligence, the investigation of the economic and social status of each student at least once during the high-school career, the preparation of 12 guidance pamphlets to aid high-school principals and counselors in the interpretation of the collected data, and the examination of each student by objective scholastic tests in all subjects he is taking each year. All these data collected while the student was in high school will be placed on a Hollerith card for use of college authorities. The card will also contain a complete statement of student's educational environment while in college, listing courses taken, instructors teaching each course, and the time of day in which the course is taught. Student employment records will be kept. The results of the student's college work will be re-

[9] Association of American Colleges Bulletin, Vol. 16, No. 2, May, 1930.

corded in terms of marks and ratings, and results of different instructors will be compared and the validity of their marks studied.

Related to such research programs is the one that has been conducted by the colleges and high schools of Pennsylvania, with reference to students who pass from lower schools into institutions of higher education. Sponsored by the State department of education and supported in part by the Carnegie Foundation for the Advancement of Teaching, the study is conducted by the staffs of the colleges concerned. This study was begun in 1928 and will be continued for four to six years. It is the purpose of this study "to devise and apply certain practical procedures for transforming mass education into particular education and for enabling the individual to mount directly on his abilities and educational achievements."[10]

A number of the larger institutions are no longer willing to wait for outside agencies to evolve the data for a scientific approach to the study of their problems; they are now perfecting the techniques which should enable them to produce a series of fruitful studies in those fields in which modern methodology can be of greatest use.

Courses dealing with higher educational questions have been added to the programs of a large group of colleges and universities, too numerous to mention in this report.

SPECIAL SERVICES OF COLLEGES AND UNIVERSITIES

In addition to regular academic activities several colleges and universities have rendered a special service in the field of government and international relations through permanent institutes during the past decade. Among these are the Institute of Politics, which has been held annually at Williams College, Williamstown, Mass., under President Harry A. Garfield; the Los Angeles University of International Relations, sponsored by the University of Southern California, and chartered in 1924; the Institute of Citizenship and Government of the University of Virginia has been active since its establishment in 1927.

The most recent organization of this character has just been announced (June 30, 1930) by President John J. Tigert, of the University of Florida. This is known as the Institute of Inter-American Affairs. This has for its principal objective the fostering of better cultural relations between the United States and the countries of Latin America. The first annual meeting was held in February, 1931.

Special services are being rendered also by such schools as the Princeton School of Public and International Affairs, Georgetown

[10] Twenty-fourth Annual Report, the Carnegie Foundation for the Advancement of Teaching.

University School of Foreign Service, the Walter Hines Page School of International Relations at Johns Hopkins University, and the Johns Hopkins Institute of Law. The Yale Institute of Human Relations is an outstanding effort to coordinate study and research under the most favorable conditions of adequate housing and cooperative activity of those departments of the university that are particularly interested in human development, biological as well as sociological.

OTHER SERVICES TO HIGHER EDUCATION

The year 1930 marks the establishment of two journals covering the field of higher education. The Journal of Higher Education made its appearance January 1, 1930. It is published by the Ohio State University and is edited by Prof. W. W. Charters.

The Junior College Journal, published by Stanford University Press, and edited by Prof. W. C. Eells, printed its first number in October, 1930.

In 1930 there was established a National Committee on Standard Reports for Institutions of Higher Education. This committee, representing the principal associations concerned with college business administration, has made a study of the practices followed in the financial reports of 363 colleges and universities. Under the direction of the chairman, Lloyd Morey, comptroller of the University of Illinois, a staff of experts made two reports showing the characteristics of the financial reports of 156 of the foregoing schools. It is the purpose of the committee to reconcile the differences that exist in the various practices of institutions with the hope that new forms will be evolved which will apply to all types of institutions and which will have the same meaning.

The Pan American Union for many years has served higher education in Latin America and this country by preparing and exchanging studies showing existing educational standards and trends. This work is now conducted through the Division of Intellectual Cooperation established in 1929.

PRESENT TRENDS IN HIGHER EDUCATION

Notwithstanding criticism to the contrary, there are definite goals toward which leaders are directing higher education and which are indicative of certain trends.

The goal of universal opportunity for higher educational privilege has come to be recognized within the past decade, in spite of opposition, as one worthy of the fullest support. Justification for this belief may be found in the opinions of experienced leaders. Dr. C. R. Mann has said:

Human talents are distributed through the whole people in such a way that civilization advances farther the more complete the latent creative talents of all the people are discovered and constructively developed.

Chancellor E. E. Brown, of New York University, indicates a correlation between American supremacy in the fields of industry and commerce and the great increase in high school and college enrollments, and in view of this great economic growth there is "the need for training the people—the mass—how to provide and enjoy economic advantage." He even advises that universities should prepare for greater enrollments.

This broad expansion of higher educational opportunity does not disturb President Sproul, of the University of California. He says:

There is no danger of creating a surplus of trained men and women. Enrichment, the very soul out of which a superior life can grow, this growth comes from below by virtue of material need, not forced down from above.

Again Doctor Snedden, of Columbia University, points to the broader concept of higher education as follows:

For our day there exist scores of directions along which men and women may become highly cultured in ways and degrees that befit the democratic citizens of a commonwealth in which there is no leisure class, though all possess much leisure.

Many kinds of leadership are needed, and as Dean James Earl Russell has said: "Leaders, not aristocrats, but experts giving a particular service."

The rapid expansion of college and university extension service in recent years shows the fullness of opportunity that is being extended to the adults and others who can not take advantage of the regular college programs. L. R. Alderman, of the Office of Education, reported in 1930 that at least 443 institutions of college grade provide some extension work.

The possibilities of this type of expansion has led President Lotus D. Coffman, of the University of Minnesota, to call attention to its significance and the need for a "more adequate or satisfactory interpretation of the forces or causes responsible for the development of the movement."

With such opportunities open, it is possible that, instead of the few, many, if not all, may win the race in some form of leadership or scholarship, or specialized service to society.

Considerable criticism, however, has been made of the dangers of too much breadth and freedom in higher educational aims and programs. Typical of such criticism is that recently directed by Dr. Abraham Flexner against the multiplication of courses that

do not appear rightfully to belong to the college or university programs of study.

Perhaps more serious is the criticism which has come not from the accretion of certain border line courses of study but because of the excessive development of high-grade subject matter which represents the expansion of our scientific knowledge during the past generation. President Nicholas Murray Butler feels "that progress not only includes more refined scientific methods but also a greater synthesis and a greater purposiveness in our educational program and outlook." He also says: "We have given the stone of minute experimentation instead of the bread of interpretation."

Col. R. I. Rees, representing industry, says that "science and engineering have solved the problem of production, but our economic order has found itself swamped rather than served by the efficiency of the machine age. * * * The problems facing the college man in business have to do with human relationships. Education must equip the potential industrial leader with a fundamental knowledge of biology, psychology, sociology, economics, and the humanities."

This emphasis on purpose, interpretation, and synthesis points to a return to higher educational objectives which are more "formal" in character. Perhaps the pendulum is beginning to swing away somewhat from the objectives of "content and vocation." The history of education shows a more or less continuous oscillation between these two types of objectives.

And as this dualism in higher education has its roots deep in the past we may expect in the future to see institutional readjustments falling in line with one or the other of these viewpoints.

The further evolution of our higher educational system is not entirely clear, but there are indications that there will be a better balance between the institutions giving more formal or general training and those whose objectives are professional or vocational. The liberal arts college movement, if its program permits, should tend to strengthen the formal viewpoint.

It is the opinion of the Commissioner of Education that there will be a submerging of a number of the weaker colleges, and that in their place there will emerge a strong group of liberal arts institutions. In his address at Carleton College Commissioner Cooper called attention to the following situation:

> Probably there is no liberal arts college, or for that matter any higher educational institution in the United States, which does not fully realize that it is on trial. Few of them feel at all confident that the verdict if rendered will be favorable. There has been a change in the aims of the liberal arts college to civic and social responsibility rather than liberal education as of 50 years ago. The liberal arts college is between two millstones, the preparatory schools and

the graduate schools. The preparatory function of the liberal arts college is being rapidly assumed by the stronger high schools and junior colleges. When the college undertakes vocational and prevocational work it abandons its traditional character and takes on the nature of the American university.

I think we may look forward to a day when students will enter the professional schools of senior college level at the age of 18, and thereby save the two years' time that President Eliot wanted them to save. But at the same time it seems to me that the increased economic well-being of our people will enable many whose sons and daughters will be ready for these professional schools at 18 to give them a longer period of general and cultural education than that offered in the junior college.

There is a second group of students who should favor an institution of Carleton's type: Those who teach the so-called academic subjects in the high schools of the country or who will be preparing themselves to enter highly specialized graduate institutions for the purpose of research study. In this group will fall a large number of young people, especially women whose family fortunes make immediate vocational objectives unnecessary and who should be prepared for the highest type of home making and civic leadership. In this generation of comparatively late marriages this sort of a college will serve best the needs of these people if the college is, to use the words of Doctor Meiklejohn, "a good place in which to live as well as a good place to study."

The second possibility is for the liberal arts college to surrender its two upper years to the university, to annex two high-school years, and thereby become a junior college of the type represented by Stephens College, Columbia, Mo., and the City Junior College of Pasadena, Calif., or of Johnstown, Pa. I believe that church bodies with several colleges under their control should make a few of the stronger ones into universities.

A third possibility lies in specialization. The California Institute of Technology in Pasadena is a highly specialized school of limited size, selecting its students with great care and maintaining the best ideal of the old college at a high degree of efficiency.

Doctor Cooper also calls attention to Antioch College as a specialized form and suggests as a future plan the organization of a college on the "house plan" of Harvard University for the purpose of specializing in the fields of diplomacy and international relationships.

Whatever the existing educational trends may indicate respecting the emergence of different types of colleges, such emergence or submergence in the future doubtless will be controlled more and more by approved scientific information based upon careful experimentation; and although educational trends seem at times to be divergent, there is increasing evidence to show that the colleges are giving more recognition to the student as an individual rather than as a rapidly moving cog in a complex machine by giving greater flexibility when and where needed in the student's program but at the same time encouraging as well as requiring him to assume as far as possible full responsibility for the successful outcome of his educational endeavors.

CHAPTER XIV

PROFESSIONAL EDUCATION OF TEACHERS

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Contents.—Introduction—Supply and demand—Certification of teachers—Overhead and internal administration and control—Fiscal aspects—Staff personnel and the improvement of instruction—Student personnel—Curriculum—Observation and student teaching—Inservice teacher training—Research and publications—Summary.

INTRODUCTION

Current problems in the education of teachers that are of chief interest, as judged by returns from nearly 100 teacher-preparing institutions and from State departments of education, and by general discussions to be found in the literature of the field, may be grouped under the following topics: (1) Teacher supply and demand; (2) Certification of teachers; (3) Overhead and internal administration and control of teacher-preparing institutions; (4) Problems of finance; (5) Institutional staff problems, including selective admission; (6) Curriculum construction and revision; (7) Student teaching and the training school; and (8) Education of teachers in service.

Since developments during the short period of the biennium are too limited to permit the discovery of many distinct trends that will throw light upon the possible solution of problems indicated above, and furthermore since the present year marks the end of a decade of significant and noteworthy changes in the field of teacher education, the conclusions in this survey chapter will in many cases be based upon data covering a 10-year period, or upon an 8-year period when data for the year 1930 are not available.

TEACHER SUPPLY AND DEMAND

During the early part of the decade reports concerning the supply of teachers indicated a scarcity in numerous sections of the country. At the close of the decade, reports from many cities and States indi-

cated a large surplus of certificated teachers. This is particularly true in the metropolitan areas, where many young people qualified for appointment are unable to secure teaching positions in the public schools. It is reported that more than 3,000 graduates of New York City training schools were qualified at the close of the decade for positions, whereas less than one-third of them could be actually placed on the eligible list. Some of these graduates must wait three or four years before consideration for appointment. A similar situation exists in other cities.

It is extremely difficult to give the actual quantitative oversupply of teachers for a single State. For instance, in Alabama, 25,698 persons held certificates during 1929. This was approximately 9,300 more individuals than were required to staff the public-school system of the State. It does not necessarily follow, however, that this surplus of persons holding teaching certificates is one of unemployed teachers actively seeking positions in Alabama.

There may be an oversupply of teachers in a given locality in one field of work and an undersupply in another. In California one study shows an estimated shortage of 148 elementary and kindergarten-primary teachers and of 18 junior college teachers, while an excess of 636 general and special secondary education teachers and of 778 junior high school instructors is found. The net total excess would appear to be 1,248.

Of the normal schools and teachers colleges making returns to the Office of Education concerning teacher supply and demand in 1929–30, a majority reported an oversupply of teachers in one or more specific fields. Often in the same State, an undersupply of teachers of a given type was reported in one section and an oversupply in another. The returns, which are indicative only, are shown in Table 1.

TABLE 1.—*Condition of teacher supply and demand, 1929–30*

Type of work	Number of institutions reporting		Type of work	Number of institutions reporting	
	Oversupply	Undersupply		Oversupply	Undersupply
Kindergarten	3	5	Commerce and business	8	4
Kindergarten—Primary	6	5	Physical education and health	3	4
Primary	11	6	Home economics	8	4
Intermediate	10	4	Industrial arts	1	2
Junior high school	12	4	Music	6	5
Elementary	15	3	Art	2	4
Rural	9	3	School administration		2
English	13	3	School supervision		2
Mathematics	3	3			
Natural science	10	8	Total	125	72
Social science	5	1			

Reports were received from the State universities and land-grant colleges in 1928 concerning conditions of supply and demand. A shortage rather than a surplus of teachers was reported in vocational and nonacademic or special subjects, as compared with a decided oversupply of elementary and high school teachers of academic subjects. Conditions varied considerably among the States and local communities.

Present conditions of oversupply are attributed to numerous causes. During the decade an increase occurred in teachers' salaries in every State of the Union. The average salary of all teachers in the country as a whole in 1920 was $871, as compared with $1,364 in 1928. The States paying the highest average salaries in 1928 were New York, California, New Jersey, Massachusetts, and Connecticut. Nearly all of these States report a condition of oversupply of teachers in at least some fields.

Only a few States or cities maintain salary levels high enough to insure an ample supply of experienced elementary teachers with four years of training above high school.

It is interesting to note the salary schedules under which it is possible to secure teachers of standard training. In California, a State with practically a minimum scholastic requirement of four years' preparation for beginning elementary teachers and even a greater amount of education for high-school teachers, regular teachers in elementary schools received in 1928 an average salary of $1,745; junior high school teachers, $2,272; 4-year high-school teachers, $2,422; and junior-college teachers, $2,736. The average salary of high-school principals was $3,910; of city superintendents, $5,913; and of county superintendents, $2,692.

The industrial and business depression beginning in 1929 has had only an indirect effect upon the status of teacher employment. Teaching is relatively a stable occupation. The workers in the schools are not subject to widespread lay-offs such as those experienced by employees in certain other fields. In fact, individuals not in teaching but with some college education often secure positions in professional education when they can not secure positions in other occupations.

In view of the surplus of teachers the question of the number of such workers that should be prepared annually for the public schools is of vital importance. First among the tasks of the teacher-preparing institutions is to provide teachers, supervisors, administrators, and other workers in professional education for new positions created either as a consequence of an increase in the pupil population or as a result of the establishment of entirely new course offerings or services by the public schools. A second task is to replace the teachers

whose positions have been vacated for various reasons. The extent of the task of replacement is heavy. At the close of the decade there were approximately 1,000,000 teachers. While the annual rate of teacher turnover for the country as a whole has never been accurately determined, estimates indicate that the average tenure of teachers in rural schools and in towns of less than 10,000 population is about three years, and that the average tenure of teachers in cities of 10,000 or more population is slightly more than eight years. On the rough assumption that the average teacher's period of service is between five and six years, it would appear that between 166,000 and 200,000 new teachers are needed annually to take the places of teachers leaving the profession.

Another factor to be considered is the elevation of the general level of training for existing teaching staffs. The rise in this level has been rapid during recent years in a number of States. For instance, the average amount of training above high school possessed by the teachers of Alabama in 1928–29 is authoritatively reported to be 1.2 years more than the average amount possessed in 1925–26. The present level of training for all teachers the country over is not known exactly. Usable data on this question will be obtained in 1931 by the National Survey of the Education of Teachers. Estimates of the average amount of training at the present time range from 2 to 2¾ years above high school. Studies made in 1922 indicated that the average amount of training was definitely below the 2-year level.

The number of teachers required annually to fill new positions created because of an increase of students or the establishment of new course offerings may be approximately indicated. In 1919–20, the total number of teachers of all types was 812,524, and in 1930 about a million. There has been during the decade an increase, therefore, of approximately 187,476 teachers in new positions, an average of about 18,747 per year.

The distribution of these teachers in elementary and high schools is of interest. During eight years for which statistics are available, the number of public elementary school teachers increased only 12 per cent. In the high schools there were 97,654 teachers in 1920 and 182,637 in 1928, an increase of about 87 per cent in eight years. Thus by far the heaviest demands for teachers for new positions have come from the secondary schools, most of which require college graduation as a basic qualification.

Changes in the birth rate of the general population of this country have had some influence on the number of teachers required. The birth rate in the registration area of the United States declined from 25 per thousand of the population in 1915 to 19 per thousand in 1929. This decrease was followed by a reduction of first-grade

enrollments, with a lag, of course, of six or seven years. First-grade enrollments declined from 4,323,170 in 1918 to 3,976,750 in 1926. Thereafter a moderate increase was noted until 1928, when the enrollment was 4,171,037. This increase appears to have been a temporary fluctuation. A rough conditional estimate is for a first-grade enrollment in 1936 of 3,300,000, more than a million short of the 1918 enrollment. This would represent a loss of 25 per cent of the number of children enrolled 18 years previously. While this rough estimate is admitted to be purely approximate, the general downward trend is fairly clear. Eventually, of course, the whole public-school system will feel this decrease, although at present enrollments are increasing in high schools, junior colleges, and regular 4-year colleges.

Students in training.—The number of students in all institutions primarily engaged in teacher-preparation increased more than 100 per cent from 1920 to 1928. The total student enrollments in teacher-preparing courses were as follows:

	1919–20	1927–28
Men	19,110	52,054
Women	116,325	222,294
Total	135,435	274,348

Degrees conferred by teachers colleges in 1920 numbered 1,296 and in 1928, 8,179. This is a truly remarkable increase.

Students completing 1, 2, and 3 year short curricula, including normal school graduates, more than doubled during the 8-year period. The number increased from 21,012 in 1919–20 to 49,627 in 1927–28, despite a reduction in the actual number of 2-year and county normal schools. Most of the teachers colleges after being developed from normal schools have retained short curricula to supply the type of teacher with less than four years' training still commonly accepted by employing officials. Many of these candidates when applying for positions in the elementary schools are in direct competition with graduates of the 4-year courses in teachers colleges and other colleges.

In all the universities and colleges of the United States, 521,754 students were enrolled in 1920. In 1928 there were 919,381. The exact number of students who were preparing for teaching during the two years for which data are given is not known. However, fairly reliable studies have been made showing that perhaps two-fifths of the students in the arts and science colleges and one-fourth in the agricultural colleges in this country enter teaching. From 60 to 80 per cent of the Ph. D. graduates of the universities enter work in education. The number of graduate students in this country increased from 9,370 in 1920 to 44,165 in 1928. There was a 35 per cent increase in the number of graduate students in the two years between

1926 and 1928. Some interesting consequences of this unprecedented growth may be expected in future scholastic requirements for teachers in high schools, junior colleges, and regular 4-year colleges, as well as in public-school supervisory and administrative work.

The ratio of teachers in training to positions available has changed greatly during the last 20 years. In 1910 there was 1 prospective teacher in training for every 5.5 positions. In 1925–26 the ratio was 1 to slightly more than 2 positions and in 1927–28 1 to every 1.7 positions.

Unfortunately, while an oversupply of fairly well-trained teachers exists in some sections, there are tens of thousands of teaching positions staffed from year to year with teachers whose training does not meet accepted standards. The preparation of rural teachers as a whole is insufficient. This is due largely, of course, to the fact that the salaries paid are too small to attract properly qualified teachers. One of the most serious consequences of the oversupply of teachers in localities where low standards of employment prevail is that candidates with one or two years of training receive the appointments to the exclusion of teachers with three or four years' preparation.

Most teachers prefer to accept positions in the immediate vicinity of the place where they secured their preparation, or in close proximity to their homes. The wealthy and progressive sections of the country are usually well supplied with colleges and teacher-preparing institutions. In such regions more well-trained teachers are available than can be placed, with the result that a large oversupply readily develops.

The present surplus of certificated teachers is probably temporary. Forces tending toward stabilization are ceaselessly at work. For instance, between the first half and the last half of the decade there has been a significant change in the rates of the increase of students taking teacher-training work in normal schools and in teachers colleges. From 1920 to 1924, the gain was 81 per cent; from 1924 to 1928 it was only 12 per cent. Again, while the number of students pursuing teacher-training courses in colleges and universities continues to increase, large numbers of such students are unable to secure positions in educational work and enter other vocations. Meantime, certification requirements are constantly rising.

Educators who are interested in the upbuilding of their profession are faced with the possibility of lowered salaries if the present surplus of applicants for teaching positions continues. Such an outcome would be a grave misfortune educationally, particularly in view of the fact that probably most teachers are undertrained and

levels of training can not be advanced if salaries paid do not justify to the individual the cost of his preparation.

Organized workers have been successful in raising the standards of admission to certain trades and professions. Poorly qualified applicants for training or for positions are more or less effectively barred from entrance. It is probable that teachers and educational leaders will be able to retain most of the gains that they have made in upbuilding and improvement of the profession of teaching, and perhaps make some future advances, if prevailing opportunities are fully utilized.

The most promising methods of capitalizing existing opportunities for the advancement of the qualifications of members of the profession appear to be selective admission to training institutions, the raising of standards of certification, strengthening requirements for employment, and inservice teacher education.

Selective admission.—Current unsatisfactory relationships between the supply of and demand for teachers, as well as overcrowded conditions in a few teacher-training institutions, have resulted in the increasing application of selective admission procedures to prospective students. Of the teachers colleges and normal schools reporting in 1929–30 concerning admissions, 47 per cent claimed to be applying special selective measures to candidates for admission in addition to the usual high-school unit requirements. While it is probable that the measures reported are in many cases little more than hopeful gestures, nevertheless significant and extensive progress is being made. The selective requirements most commonly applied are reported as follows in order of frequency, while at least a dozen other means of selection are occasionally employed although omitted here: (1) Superior high-school scholarship; (2) satisfactory scores on intelligence or other psychological tests; (3) satisfactory scores on standard achievement tests; (4) satisfactory scores made on special subject-matter entrance examinations; (5) satisfactory personal interview; and (6) satisfactory health and physical examinations.

The requirements mentioned above are for matriculation in the freshman year. After entrance to the institutions superior scholarship is also being required in some of the colleges and universities for admission to their schools or colleges of education, or to student teaching.

Elimination on the basis of poor scholarship after admission to the freshman year is, of course, a common practice in nearly all institutions. There are three or four municipal institutions that admit students only on probation.

Entrance requirements of teachers colleges and normal schools that are more or less selective in nature are indicated in a recent study.[1] One State requires all candidates to take an entrance examination; others require an entrance examination if certain conditions, such as superior scholarship in high school, are not met. Twenty-one States require a minimum age qualification, although high-school graduation, almost universally required, renders this practice largely superfluous. Twenty-six States require health qualifications of applicants for admission. Nine States require of the candidate that he declare his intention to teach. Thirty-nine States require specific high-school units or combinations of units.

During the course of the evolution of teacher-preparing institutions admission requirements have risen progressively from little more than the ability to pass an examination in reading, writing, grammar, and arithmetic, to requirements that are the equivalent of those enforced by standard colleges and universities. Both teachers colleges and normal schools are largely free from reproach in respect to low admission requirements. Instead, as already indicated, the tendency exists to superimpose on the usual admission requirements, selective measures that more or less effectively bar from the training institutions the poorest material among high-school graduates.

Efforts to impose detailed subject-matter prescriptions for entrance have not been very successful. Existing studies fail to indicate any large advantage gained by teachers who have taken any particular offerings as distinguished from others among the usual high-school courses of study. No significant differences, for instance, have been shown in the college attainment of students whose chief field of interest was English in high school, rather than history or some other academic subject. The type of secondary-school curriculum completed would appear to have little influence on college success.

However, it is true that students who have made high grades in secondary schools are likely to make an excellent showing in college work. While teacher-preparing institutions are finding it difficult to justify detailed admission prescriptions in respect to subject matter, they are justified in demanding that the general work of high-school students seeking admission be of high grade.

The best exemplification of definite and intensive programs of selective admission are afforded in the municipal teachers colleges and normal schools, most of which are confronted with many more applicants than it is possible for them to accommodate. In addition to the qualifications mentioned the points considered by these

[1] McNeil, Mellicent. A comparative study of entrance to teacher-training institutions. New York City, bureau of publications, Teachers College, Columbia University, 1930.

institutions include guidance in high school, number of high-school units, minimum high-school standards, recommendation of high-school faculty, character rating, and others. It should be said that complete confidence in any one method or series of methods of selective admission is rarely expressed.

Rochester City Normal School, among other institutions, requests the principal of the high school attended by the applicant to fill out a recommendation blank for the candidate in respect to such traits as moral character, health, special aptitudes, special weaknesses, personality traits, and other qualifications. Teachers College of Kansas City, in addition to a wide variety of other provisions, is interested as to whether or not the high schools are provided with faculty advisers who have made studies of qualities desirable in teachers. Attention is given also to the high-school program of the student in order that the requisite units offered will meet the requirements for admission to the teachers college. Some teacher-training schools ask the principal of the high school to check the quarter of the class to which the applicant belongs in respect to certain traits of the applicant. In Boston, candidates for entrance are required to stand examinations in the required subjects of the fourth high-school year. At Louisville, Ky., admissions without examination are limited to those in the upper half of the high-school class, while those who fall below this requirement must take entrance examinations. Detroit Teachers College has a very complete system of tests, such as general intelligence, English training, and English composition. It also requires orthopedic, medical, and speech examinations.

Psychological test scores are not commonly used as sole means for denying students admission to institutions, but are often used as a basis of determining the student's fitness to continue in teacher-training work. Personal interviews are required in a few schools, such as in Richmond and Philadelphia. Approximately one-half the municipal institutions require health examinations, which are conducted in most cases by special medical examiners. Further adoption of this plan is advocated by many authorities. It is assumed, of course, that all acceptable candidates have good moral character. Age limits are not commonly stressed.

Little genuine progress has been made in respect to the construction of personality tests although the importance of personality in teaching is commonly admitted. Persistent efforts have been made to prepare valid and reliable tests with little apparent success. Personality and general character records when kept by qualified faculty members over a period of years, appear to offer more valuable criteria for selection on this basis than almost any other method.

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Teacher trainers are beginning to feel that selective admission to be effective should begin in the secondary schools. The belief is held that the high schools could perform a most valuable service by setting up a thoroughgoing guidance program beginning early in the students' work. Such a program could be used to recruit good material for teaching as well as to discourage the unfit.

CERTIFICATION OF TEACHERS

Foremost among movements to raise the standards of teacher certification during the past few years has been the increase in minimum State requirements for mastery of academic, technical, and professional subject matter. Among the States that have raised their certification requirements during the past four years for practically all beginning elementary teachers to a minimum of two years above high school are the following: Colorado, Connecticut, Idaho, Indiana, Louisiana, New Jersey, Oregon, Pennsylvania, Utah, and Vermont. Alaska and Hawaii may soon be added to this group. Arizona has set a minimum of three years, Massachusetts has set the same for institutional diplomas, and California a minimum of four years for certification although a few teachers are still given examinations for certification in that State. The State of Washington will have a 3-year minimum for elementary teachers in 1933, and the District of Columbia in the same year will have a minimum of four years. The bachelor's degree, of course, has become a standard requirement almost everywhere for academic teachers in accredited high schools. The District of Columbia, like California and a few other sections, has gone even further by definitely raising requirements above college graduation for secondary teachers. In 1933 the master's degree or equivalent training will be required of all high-school teachers in the District of Columbia. Graduate work, while not required of teachers in most high schools, is a decidedly helpful asset for teachers wishing to secure positions in progressive schools.

While State certification requirements have advanced considerably, it should be kept in mind that they are usually minimum requirements and hence do not reflect the actual standards of employment in the better schools. Progressive employers of teachers may, and often do, set higher standards of employment above those established by the minimum State requirements. As evidence of this tendency it may be noted that while 15 States do not actually require graduation from college for secondary school teaching certificates, newly appointed high-school teachers in these States are usually college graduates.

A second tendency in certification that is noteworthy is the abolition or so-called "blanket" certification and the provision of certi-

fication by subject or by field of work. A suprisingly large number of teachers in this country are giving instruction in high-school subjects that represent neither their major nor minor in college. A movement is under way to remedy this condition. Beginning with special certification for nonacademic teachers, the movement has been extended to grade specialization, and now certification is being based on regular high-school academic subjects and on types of work, such as principalships and superintendencies. Important phases of school service, such as specialized work in administration and supervision, are too frequently performed by individuals with little or no specific training in these fields. Among the States that are extending most rapidly their certification requirements to specific subjects or types of work are Connecticut, Delaware, Indiana, Maryland, Ohio, North Carolina, Pennsylvania, Virginia, and West Virginia.

A third outstanding tendency is the centralization of certification in the State departments of education. Since Colonial days a slow but steady movement has taken place to deprive city, county, and district agencies of the power of certification of teachers and to centralize this authority in the State departments. About half the States in 1920 issued all certificates directly to teachers; in 1930, three-fourths.

A fourth tendency is to grant certification on credentials from only those higher educational institutions approved by the States. There are on an average more than 25 higher institutions per State in this country. Most of them welcome opportunities to place their graduates in teaching positions. The idea that all these institutions can prepare teachers with equally satisfactory results for modern public schools is fast disappearing. Progressive State departments are increasing the pressure upon institutions to meet definite standards of teacher training. A small number of weak institutions unable to comply with these standards are either abandoning professional curricula for teachers or going out of existence, thus reducing sources of supply of poorly trained teachers who compete with graduates of properly supported and equipped teacher-preparing institutions.

Despite the rapid progress made in raising standards of certification, certain changes in the administrative procedure of State systems of certification are being advocated. One urgent need is standardization of the nomenclature used in the certification requirements of the different States. The terms applied to the certificates in a given State mean little outside of its boundaries. Transcripts of college credits are usually requested for certification of outside teachers by State authorities rather than teaching certificates granted in other States.

The elimination of the examination as a means of certification is another procedure receiving attention. Minimum requirements in academic and professional subject matter are supplanting examinations to an increasing extent. At least 12 States have practically or entirely abolished the examination as a method of certification. These States include Arizona, Indiana, Louisiana, Maryland, Michigan, Minnesota, New Jersey, New York, North Carolina, Utah, Vermont, and Virginia. Other States have almost eliminated examinations, among them being California, Pennsylvania, and Washington. There are other States in which certification by examination has been greatly minimized. In most of the States the actual number of certificates as well as the number of different types of certificates granted by examination are decreasing annually.

Six States have abandoned life certification entirely. Increasing restrictions are being placed upon this type of license by other States which still grant it. The problem of inducing teachers who hold life certificates to keep up with advancing scholastic requirements is a serious one and has not yet been solved, since most new certification requirements are not retroactive.

A number of teacher-preparing institutions afford assistance directly and indirectly to State departments in the formulation of certification requirements and regulations through conferences, suggestions, and the conduct of research work. In some States, institutional officers are members of the State boards of education. State departments with small staffs, as in Oregon, often rely to a large degree upon the research agencies of the higher institutions in determining the most feasible course to follow in setting certification requirements. Research in teacher supply and demand conducted by local institutions has been found particularly valuable. Teacher-preparing institutions themselves that maintain high efficiency in their work are in an excellent position to assume leadership in raising standards of preparation above State certification requirements.

OVERHEAD AND INTERNAL ADMINISTRATION AND CONTROL

In most States during recent years the tendency has been to place State teachers colleges and normal schools under a single governing body rather than to maintain separate local boards for each institution. More or less centralized systems of control are now found in at least 27 out of 44 States having publicly supported normal schools or teachers colleges.

States in which the departments of education govern teacher-preparing institutions include Alabama, California, Connecticut, Louisiana, Maryland, Massachusetts, New Hampshire, Oklahoma, Tennessee, Vermont, and Virginia. The movement toward concen-

tration of control in the State department of education is meeting with much favor among public-school officials. The principle of having publicly supported teacher-preparing institutions operate in close conjunction with the public-school system as a whole is now accepted as sound by most States. In the case of a few States, government of all the teacher-preparing institutions has been placed in a single board separate and distinct from the State board of education. These States include among others Colorado, Indiana, Maine, Michigan, Minnesota, Nebraska, Texas, and Wisconsin. In several States the central boards that direct the teachers colleges or normal schools also govern other types of institutions, such as State colleges or polytechnic institutions.

Increased recognition of the teachers colleges by the regional college and university accrediting associations has been manifested during the past few years. The Association of Colleges and Secondary Schools of the Southern States now includes 24 teachers colleges on its approved list of such institutions. The Northwest Association of Secondary and Higher Schools has accredited eight teachers colleges and normal schools, while the North Central Association of Colleges and Secondary Schools plans to discontinue its separate list of accredited teacher-training institutions and to incorporate them into its regular list of constituent members.

A growing number of teacher-preparing institutions are being accredited by the American Association of Teachers Colleges. Standards have been steadily raised during the decade. At present 116 teachers colleges out of 140 are classified as class A institutions. A smaller number proportionately of normal schools are recognized by the association as class A institutions.

The growth during the decade has been most encouraging in membership and productive efforts of organizations of faculty members and officers engaged in teacher preparation. In addition to the American Association of Teachers Colleges, several other groups now function that represent more or less specialized interests within the field of teacher education. The municipal normal school and teachers college section of the National Education Association and the supervisors of student teaching meet annually in conjunction with the Department of Superintendence. In the college and university field the National Association of Colleges and Departments of Education and the National Society of College Teachers of Education hold similar annual meetings. Other groups, such as the Eastern States Association of Professional Schools for Teachers, conduct vigorous and effective work. A large number of groups primarily interested in the several subject-matter fields also assist materially in advancing the professionalization of teaching.

A number of important changes have occurred in the types of teacher-preparing institutions during the decade. Many normal schools have been expanded into full 4-year teachers colleges. The following table presents comparative figures between 1919–20 and 1929–30, showing these and other changes:

TABLE 2.—*Number of teacher-preparing institutions and agencies of different types, 1919–20 and 1929–30*

Year	Teachers colleges	State normal schools	City normal schools	County normal schools	Private normal schools	Departments of education in colleges and universities
1919–20	46	137	33	95	60	491
1929–30	140	66	26	47	52	623

It is evident from an examination of Table 2 that a very large increase in the number of teachers colleges has taken place, the gain being approximately 210 per cent. In 1929–30 there were 71 fewer State normal schools than in 1919–20, or about half the number in 1929–30, as compared with 1919–20. Six more of the normal schools of 1929–30 will become teachers colleges in 1930–31. This general decrease of normal schools is due to the expansion of normal schools into 4-year institutions. There is also a marked decline in the number of county normal schools, while departments of education in colleges and universities have materially gained in number. The tendency, therefore, is to concentrate teacher training in 4-year institutions. Approximately three-fourths of all students in training in independent institutions primarily engaged in the preparation of teachers are now enrolled in the teachers colleges.

As already indicated, the growth in the number of departments of education in colleges and universities was one of the outstanding developments of the decade. The growth in number of schools, colleges, and major divisions of education was likewise noteworthy. Owing to the differences in terminology applied by the higher institutions to such units, only an estimate is possible in respect to their number. Judging from returns made by the institutions, there are now more than 60 major units, the deans or heads of which are directly responsible to the presidents. It may be safely stated that the number of such units has doubled during the decade. Approximately 140 colleges and universities now grant degrees in education.

In respect to internal administration, one of the most important and difficult problems is the coordination of the several institutional departments and other units, including the training school, engaged in the preparation of teachers. Much interest during the decade has

been expressed in this question and widely varying methods and practices have been reported for securing such integration. In general, most administrators agree that sporadic procedures on the part of individual staff members, however commendable in spirit, are inadequate. What is needed is the effective development of functional teacher training extending through all the departments of the institution. Personnel willing and able to develop and carry into effect a united program of teacher preparation must be provided. Some of the most promising procedures leading to integration of effort that have been adopted follow:

1. Definite placement of administrative authority in the hands of capable leaders for carrying out the program of coordination.
2. Appointment or development of a training-school staff that commands the respect professionally of other departments of the institution.
3. Organization of cooperative faculty projects in curriculum revision.
4. Appointment of regular college staff members who have adequate professional training and successful public-school teaching experience, as well as academic preparation.
5. Organization of cooperative research projects on instructional and related problems of the institution.
6. Carefully planned faculty conferences on instructional problems.
7. Preparation of printed or mimeographed reports explaining the objectives and programs of the different departments in such way as to disseminate knowledge of their achievements.

It would appear that local conditions very largely determine the type of program of coordination that will be most successful. Much depends upon the administrative leadership of the institution. Given a sympathetic president, with a staff that is professionally alive and headed by capable leaders, reasonable progress is not extremely difficult to attain in the development of an integrated program of teacher preparation.

FISCAL ASPECTS

Total receipts of all the teacher-preparing institutions in the United States more than doubled during the decade. The income from States, cities, and counties advanced from $19,670,253 in 1919–20 to $43,240,309 in 1927–28, a gain of $23,570,056, while the receipts from all sources increased from $31,395,389 to $70,016,988, the gain being $38,621,599, or 120 per cent. The average receipts per individual institution were $91,532 for 1919–20, as compared with $229,564 for 1927–28.

The difference in amount of receipts in the case of single institutions is very great, ranging in 1930–31 from surprisingly low sums to as high as $904,000, the total operation and maintenance income of the school at Cedar Falls, Iowa. The next largest incomes for operation and maintenance are reported by Western State Teachers College, Kalamazoo, Mich., with $901,400, and State Normal College, Ypsilanti, Mich., with $874,155.

Expenditures for construction of new buildings and other capital outlay have increased steadily during the decade. The largest amount expended by any individual school for capital outlay was $176,675 in 1919–20. More than a score of teachers colleges expended amounts in excess of this sum in 1930–31 when there were at least three institutions that reported expenditures of more than $400,000 for permanent improvements.

The chief source of income of State teacher-preparing institutions is, of course, from public taxation. More than three-fourths of the income of typical State teachers colleges is provided by the State. About one-fifth of the income is from student fees and similar institutional collections. The remainder, a comparatively small percentage, is secured from permanent endowments, local taxation, and Federal funds. While no significant changes are noted in the relative proportions of income derived from different sources during recent years, the amount of State support given to-day is in distinct contrast to that afforded early in the history of teacher preparation when this function was regarded largely as a private enterprise. The assumption by the State of the responsibility and function of teacher preparation, involving also its support, constitutes one of the most significant chapters in the history of this basic educational activity.

The full effects of the economic depression existing at the close of the decade have not yet been felt by teacher-preparing institutions. Reduced receipts from taxation, however, are general and a growing number of institutions may be forced temporarily to curtail their programs. It is anticipated that such curtailment will not be permanent except where local conditions already render some fundamental readjustments advisable. Many teacher-preparing institutions are poorly located. In some States there is a surplus of inadequately supported institutions and situations exist where teacher training is undertaken by more than one school in the locality. Such conditions are serious in sections where there is a long-continued oversupply of teachers and when the particular institutions have been established for the sole purpose of meeting local needs.

Interpretation of unit costs for teacher preparation made in recent years indicates that institutions with large enrollments have a much lower annual expenditure per student than the smaller institutions.[2] Among State normal schools, five with an average annual enrollment of fewer than 200 students have an average annual per capita cost of $324.43 for all current expenditures; whereas five schools with an enrollment of 1,000 or more students average $246.74. In the State teachers colleges, institutions with an average annual enrollment of fewer than 400 have an average per capita cost of $439.67, while schools having an enrollment of 2,000 or more show an average annual per capita cost of $263.46. It is evident, therefore, that States that have adopted the policy of establishing a number of small teacher-preparing institutions miss the mark widely if they wish to reduce the cost of their teacher-preparing program. It should be said, however, that other considerations may make investments in the smaller institutions desirable.

STAFF PERSONNEL AND THE IMPROVEMENT OF INSTRUCTION

A large increase occurred in the number of staff members employed by teacher-preparing institutions during the decade. The grand total of instructors in teachers colleges and State normal schools in 1919–20 was 3,560, while in 1927–28 the number was 5,831, an increase of 68 per cent during this 8-year period.

The gain in staff members has not kept abreast of the increase in enrollment. There was an average of 1 instructor to approximately every 17 students in 1919–20. For the year 1928–29 the average was 1 instructor to every 21 students, indicating a tendency to increase the teaching load to a slight degree.

The ratio in 1927–28 of men to women in the faculties of these institutions was 1:1.7, which was approximately the same as existed in 1919–20. In the colleges, universities, and professional schools in 1928 the ratio was 3.5:1.

In 1930, 102 women were heads of departments of education out of a total of 629 positions of this kind. Two 4-year teachers colleges and 11 State normal schools have women presidents. About one-third of the municipal normal school and teachers college heads also are women.

In comparison with outside educational service, it is interesting to note that five States now have women in the office of State superintendent of education. Slightly more than 26 per cent of the county

[2] Phillips, Frank M. Per capita costs in teacher-training institutions, 1927–28. Bureau of Education, Statistical Circular No. 11, January, 1929.

superintendents are women. In nine States there are more county superintendents who are women than there are men. Comparatively few city superintendents are women. Only 35 hold this position in contrast to 2,994 men in towns and cities of more than 2,500 population. Approximately 85 per cent of the classroom teachers of America are women.

Tenure of office of the presidents of State teachers colleges appears to be increasing in length. The median length of tenure of a considerable group of former presidents recently studied was 5.7 years. Eighteen presidents of State teachers colleges now in office have held their present positions for 20 or more consecutive years. Three presidents have served for as high as 31 years each. It is to be hoped that the disadvantages of short tenure for executive officers, such as lack of continuity of educational programs, vacillating policies, and interrupted development and progress, may be increasingly obviated.

Salaries.—The median salary in 1930–31 of professors in teachers colleges and normal schools where a system of faculty ranks has been established is $3,000 for nine months' service, and $3,428 for nine months and summer session. For all other ranks in such institutions the median is $2,230 for nine months and $2,649 for nine months and summer session. In institutions where no differentiation is made in faculty ranks the median salary of all teachers for nine months' service is $2,400 and for nine months and summer session, $2,730. Less than one-fourth of the teacher-training institutions have adopted definite salary schedules.

Of 164 normal schools and teachers colleges reporting, the median salary of the president or principal in 1930 is $6,000 a year, not including perquisites. In 1920 the median salary was approximately $4,300; the pay of executive officers has thus shown a material advance. Nineteen institutions at the present time pay the president $8,000 or more, including perquisites. Institutions that report paying more than $9,000, including perquisites, are located as follows: Greeley, Colo.; Cedar Falls, Iowa; Kalamazoo and Ypsilanti, Mich.; Greenville, N. C.; Bowling Green, Ky.; Kent, Ohio; and Indiana, Pa.

Improvement of instruction.—Considerable attention is given to the improvement of classroom instruction in the more progressive teachers colleges and normal schools. Advances are being made in the selection of subject matter, which to a considerable extent influences the quality of teaching. Higher scholarship of staff members is leading to greater interest in subject-matter content both by teachers and students. In the recitation, assignments of work are more carefully planned and the value of skilled questioning is given recognition. The importance is recognized of setting up effective systems of institutional administration designed to make environ-

mental conditions as favorable as possible for class work. Faculty meetings devoted to discussion of teaching techniques are found to be fruitful when well organized and planned carefully in advance.

An indication of progress is that some institutions have adopted the policy of giving more appropriate recognition to faculty members who manifest excellence of instructional work. Demonstration lessons attended and discussed by faculty members are also found to be helpful in the improvement of classroom instruction. In a few institutions tactful supervision by exceptionally able individuals has proved effective. Class intervisitation by staff members is generally recognized as being advantageous, but notwithstanding its beneficial results has not been commonly practiced.

Colleges and universities.—Slow but encouraging progress has been made during the decade in the betterment of instruction in colleges and universities. The initiative has not been left to teachers and research workers in the field of professional education. While these workers have set a worthy example in the study of instructional problems, the maximum results have been secured where instructors in academic, technical, strictly professional, and special subject-matter fields have all joined the movement. Professional training defined in its complete sense includes every variety of activity involved in the education of teachers. Only about one-seventh of the curriculum is devoted to the subject of education.

Hundreds of studies on problems of instruction have come to notice that were conducted by the liberal arts college staffs during the latter part of the decade. Complacency has to a certain extent been replaced by an inquiring attitude. The objectives of the institutions and of the several courses have been subjected to more careful scrutiny, and the disposition appears more marked to base instructional activities upon the demonstrated life needs of college students, rather than upon the dictates of formal organization and traditional presentation of subject matter.

Earlier in the decade the movement toward scientific study of classroom instruction was characterized by much greater indifference and lassitude than at present. Echoes of earlier hostility to such study still persist, but such attitudes on the part of college faculties in progressive institutions beyond doubt are changing.

Careful selection of new teachers, special assistance to beginning instructors, granting sabbatical and other forms of leave, and retirement of very old teachers are still the most common methods employed for raising the standards of instruction. Through inservice training the scholastic qualifications of staff members are also constantly being placed on a higher plane.

More attention has been paid in recent years to the selection of the faculties of teacher-preparing institutions. More qualified instructors are now available. The number of graduate students in universities has doubled or tripled during the decade. Not only has the quantity increased, but the quality of prospective college teachers from whom to make selections has improved. At the same time salaries have not decreased. Moreover, specific professional preparation of junior and regular college teachers has become a part of the work of a growing number of graduate schools. Columbia University, University of Chicago, Ohio State University, Stanford University, George Peabody College for Teachers, and a few other institutions have undertaken definite programs with this objective in view.

Methods employed in elementary and secondary schools for the improvement of instruction through direct classroom supervision and closely related endeavors have not afforded the most fruitful approaches to the solution of the problem in higher institutions. Lay criticisms and activities and findings of research workers in elementary and secondary education, however, are beginning to bring the higher institutions to a realization that a considerable amount of self-study of their own problems is desirable.

Among the influential groups that have evinced definite interest in the problem of improvement of classroom instruction is the North Central Association of Colleges and Secondary Schools. This organization has a committee on professional training of college teachers. One of its activities has been to construct a faculty record form. The Association of American Universities has likewise created a committee of its own members to study the professional training of college teachers. In addition it has had a special commission report on enlistment and training of college teachers. Among the different recommendations of the commission approved by the association is that graduate schools make a study of their product engaged in college teaching and that they also investigate the effectiveness of the means by which the student is trained for the profession of teaching. The suggestion was made that only students having a broad range of intellectual interest and experience be admitted to candidacy for the doctorate. Another important proposal by the commission was that an adequate and varied course on the American college should be offered in the graduate school and that this course should include instruction in curriculum movements. The association also recommends to its own members that they work toward the development of teaching ability of newly appointed instructors and that each college maintain a committee on the improvement of instruction.

In recent years there have been decided improvements in libraries, laboratories, and other instructional equipment of the training institutions. For instance, the total number of volumes in the libraries increased more than one-third during the decade. Improvement is noted in the curricula of many institutions. College textbooks and references, the available supply of which has increased largely during recent years in most of the subject-matter fields, show evidences of greater variety, better selection, and more effective presentation of content.

In brief, it may be said that while actual achievement in the improvement of instruction in colleges and universities may be moderate in extent, the interest displayed is most encouraging. The increase of scientific or semiscientific study and the demands of the public schools will undoubtedly have a growing influence in the future. Meantime the need is urgent for greater integration of all the existing institutional agencies working toward instructional improvement.

STUDENT PERSONNEL

A greater increase in student population in individual teacher-training institutions is one of the pronounced changes occurring within the past 10 years. The average number of students in 1919–20 was 439 per institution. For 1927–28 the number advanced to 877 students per institution. This represents an average gain of 438 students per institution, or approximately 100 per cent. With larger groups of students concentrated on the same campus the necessity has arisen to provide better facilities for their social and physical welfare.

The emphasis placed nowadays on personality and related traits of prospective teachers has given additional impetus to the development of certain types of nonacademic and extracurricular activities in the institution. Deans of women and deans of men, teachers of physical education and health, school nurses and physicians, athletic coaches and others are all contributing to a better-rounded and more wholesome type of preparation. At the same time institutional student life has been made more attractive.

THE CURRICULUM

Teacher-training curricular construction is affected to a considerable extent by State certification requirements. The length of the curriculum depends somewhat upon such requirements. The subjects taught in the training institutions are determined to a degree by the question of whether certification is based on specific subjects or types of work.

An outstanding movement in teacher preparation is the raising of the level of training by the inauguration of 4-year curricula. Accomplishment of this objective is greatly aided by advancing the certification requirement for elementary school teachers to four years' preparation. In many States, however, normal schools have been changed to teachers colleges and the policy of standard preparation of teachers in them has been adopted, but the requisite changes have not been made in State certification requirements.

As a result the several curricula in 4-year institutions vary as to length. Of 146 normal schools and teachers colleges reporting, 1-year teacher-training curricula are conducted in 48; 2-year curricula in 114; and 3-year curricula in 52. Completion of any of these curricula entitles the student to a State teaching certificate.

The existence of short curricula leads to several difficulties. For example, the problem of integrating the courses of a student who completes a well-planned short curriculum and later returns for further work, has never been wholly solved. Again, students who pursue a one, two, or three year curriculum are often in direct and successful competition for positions with 4-year graduates of the same or other institutions. Still again, short curricula are poor compromises with the ideal of standard training for all teachers. Thorough professional training is impossible in the brief period of time covered by the short courses.

While the march of progress is onward, the realization of four years' preparation for every teacher must await a slow evolutionary process of upbuilding of State certification requirements, and teachers salaries, and of curricular development. At best, a conservative program only is possible by teacher-preparing institutions, which must await the crystallization of public sentiment and general demand for the highest possible standard of training for teachers.

A rather sharply defined issue, the solution to which has not yet been discovered, has arisen in a few States. This refers to the question of the college years in which the student shall pursue strictly educational courses. In colleges and universities and in a few State teachers college that no longer offer short curricula, the tendency is to defer strictly professional work until the latter part of the 4-year course. In the typical normal schools and teachers colleges, such work is offered earlier, commonly from the freshman year onward.

The majority of normal school and teachers college authorities throughout the country are rather insistent that proper selection, professionalization, or vitalizing of content be undertaken from the very beginning of the course. They favor the plan also of integrating the

strictly professional courses in education with academic or technical content throughout the entire curriculum. On the other hand, advocates of curricula organized to provide for the usual arts and science or other basic courses during the first two or three years, plus courses in education during the third and fourth years, point out that this is a well-established procedure, the effectiveness of which has never been scientifically disproved. In addition, it is contended that by organizing more general courses, greater service is possible to local students who never plan to teach and who would otherwise be deprived of an opportunity to secure the first two years or so of a college education nonvocational in nature.

It would appear that the majority of teachers colleges and normal schools hold rather consistently to the single objective of teacher training. The number of such institutions seems to be increasing. In 1919–20, the percentage of the students in teachers colleges and normal schools who were pursuing normal courses was 83.2, while in 1928–29 the proportion advanced to 92.2 per cent. It must be remembered that a considerable number of the students in professional, technical, or vocational schools do not, upon leaving the institutions, enter the type of work for which they are primarily trained. In the agricultural colleges of this country, for instance, approximately 45 per cent of the students who register in agriculture take up some other occupation after leaving the institution. In comparison, the graduates of teachers colleges in the main enter the profession for which they are trained.

Adequate measures have not yet been devised to evaluate the relative efficiency of teachers prepared by the traditional college plan and by the typical normal school plan. It should be said, however, that a study of the origin and development of the normal school as an institution of the people and as an instrument for service to the public elementary schools, rather than to students who wish merely a college education, will disclose considerations of importance. Similarly, a study of the growth of the arts and science colleges as preparatory institutions for teachers in colleges and secondary schools and for the learned professions will disclose other characteristics that explain much of the difficulty in effecting a reconciliation between the advocates of professionalized rather than general training in undergraduate college work.

Graduate work.—Graduate work in professional education is growing among the publicly supported teachers colleges. Of 140 of these institutions reporting for 1930, 10 have graduate offerings leading to an advanced degree. Practically none offered such work

in 1920. The State teachers colleges doing graduate work for which data are available are presented in Table 3.

TABLE 3.—*State teachers colleges offering graduate work leading to degrees*

Institution	Location	Degrees offered
Colorado State Teachers College	Greeley	M. A.
Western State College	Gunnison, Colo	A. M.
Indiana State Teachers College	Terre Haute	M. A. or M. S. in Ed.
Kansas State Teachers College	Emporia	M. S.
Do	Pittsburg	Do.
New Mexico Normal University	East Las Vegas	M. A. in Ed.
State College for Teachers	Albany, N. Y	A. M. and M. S. in Ed.

The innovation of graduate work in State teachers colleges has awakened widely diverse comments. A general attitude of opposition has developed among some State colleges and universities which are more or less in competition with such institutions and are supported from the same source of funds. The relatively high expense of graduate work leads to fear in some quarters that the teachers college will do work which will not meet recognized standards.

A growing number of advocates of graduate offerings in State teachers colleges are of the opinion that a genuine need exists for the particular type of graduate work that a well-supported and first-class teachers college should be in a position to conduct. Such graduate work, of course, should not be a cheap imitation of the traditional type of graduate offerings. There is room for some type of graduate school that will emphasize the specific preparation of good classroom teachers. While more than two-thirds of the Ph. D. graduates of this country enter teaching and only a minority enter research, the education of nearly all of them is based upon the assumption that they will spend a substantial part of their career in research. While the main function of the older established graduate schools is to prepare teachers, dissatisfaction with the instruction given by their product is frequently expressed by authorities in public schools and in teacher-training institutions. However, a few large universities have established graduate offerings for the specific preparation of college and junior college teachers. It would appear a promising departure to develop graduate work in adequately supported and well-equipped State teachers colleges for teachers, supervisors, and administrators. Such work, pursued with vision and courage, might build up a relatively new and fruitful field. The experiment appears worthy of a thorough trial.

COURSES IN PROFESSIONAL EDUCATION

Educational psychology.—Among the most important of the strictly professional courses making up teacher-preparing curricula is educational psychology. This subject by some authorities is ranked

next to observation and student teaching. It is required in nearly all well-planned teacher-preparing curricula. Textbooks in this field have been much improved during the decade. The present tendency in teaching the subject is to stress individual differences, the laws of learning as applicable to the different instructional fields, and similar topics. The phases receiving least emphasis in educational psychology in progressive institutions are such items as the effects of transfer of training and statistics. These and similar topics are regarded as of little value in elementary classroom teaching. Obviously a relationship exists between this course and principles of teaching as well as general and special methods. Closer articulation of these courses would be desirable. There should be no attempt to make expert psychological research workers out of young undergraduates who plan to teach public-school pupils, although the course should afford familiarity with the underlying principles and the scientific findings in psychology.

Principles of teaching or general methods.—The course in principles of teaching is being confined generally to problems concerned with the actual teaching process from the viewpoint of the instructor. In educational psychology chief emphasis is given the pupil's learning abilities and activities. The most recent viewpoint in this course is to regard teaching as an art rather than a science. There is more insistence upon actual demonstration of teaching in the course and less upon instruction in the theory of teaching. Consideration of the practical consequences of different methods of teaching are particularly stressed. A course in principles of teaching or general methods, given under various names and titles, is included in approximately half of the teacher-training curricula offered.

Special methods and technique of teaching.—The course in technique of teaching draws upon the subject matter of several other professional and academic fields. It is only moderately popular, although teachers themselves never cease to demand practical training of a concrete type. Some institutions include this course under the heading of general methods as well as other titles. Regardless of the names under which they are given, topics dealing with detailed instructional problems must be provided in professional courses. In the judgment of teachers in service a number of such topics should receive more detailed treatment in teacher-preparing curricula. The criticism that professional courses are theoretical and impractical can not well be leveled at a properly constructed course in the technique of teaching. The consensus of opinion among practical public-school authorities is that advocates of the broad cultural type of courses in professional education fail to recognize fully the considerable differences in the types of activities actually undertaken by elementary teachers and by university professors.

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In special-methods courses greater articulation with regular subject courses is needed. Some authorities would incorporate this course entirely with the regular subject course. Less emphasis on easily learned devices is desired by some, and at the same time teachers in service insist upon more practical instruction in teaching methods. Probably the best result in special-methods courses are secured in nonacademic fields, such as agricultural education. A growing number of institutions are requiring special methods for minor subjects as well as for major subjects in order to meet the needs of high-school teachers who must later give instruction in more than one subject.

Classroom management and school administration.—The content given under this general title is often divided into two or more separate fields particularly when there is a diversified group of students interested both in administrative and in classroom work.

One course deals primarily with the conduct of classroom routine, pupil management, and similar activities, exclusive of actual instruction. Possibly as many teachers fail through lack of skill in classroom management as from any other cause, although it must be admitted that the adept in teaching has a decided advantage in controlling routine and managing the pupils of a class. Personality, of course, plays a prominent rôle in classroom management, as well as in actual instruction.

The other course is confined to school administration which sometimes has little immediate connection with actual teaching or classroom procedures. Within the past decade it has become necessary to place greater emphasis on the courses in school administration. The work of principals and superintendents has become much more specialized. Expenditures for public schools have reached a total of more than two billion dollars annually. Due to new economic and social conditions, the operation of the schools has developed into a highly complex undertaking. Thousands of pupils sometimes enrolled in a single school. The school administrator as a consequence has a grave responsibility and his work has assumed a professional aspect requiring technical training. Courses in school administration are numerous and new subject matter covering its different phases is being constantly developed or abstracted from noneducational sources. Much research work also has been done in this field, which has supplied additional instructional materials.

Principles of education and educational philosophy.—Subject matter in principles of education and educational philosophy often duplicates the material in other educational courses. The tendency at present is to confine the content in these subjects to factual treatment of the general topics belonging to them and thus avoid duplication

with other courses. Educational philosophy is usually deferred until graduate work is undertaken.

History of education.—The study of history of education is minimized in teacher-training curricula except as it has a bearing on present-day teaching problems. The number of semester hours of credit allowed ranges from three to four in typical teachers colleges that offer the course. More emphasis is placed nowadays upon the modern historical period of education.

Educational sociology.—In the case of educational sociology much duplication with other courses is found. The work most generally duplicated is included in principles of education, orientation courses, and philosophy of education. Educational sociology is not offered as a required subject in any large number of curricula. In some institutions attempts have been made to revise the content of the course by the introduction of an historical setting or by the inclusion of laboratory methods. The course is esteemed highly from the viewpoint of theory, but its practical value under present conditions is questioned.

While possessing potentialities of great usefulness as a professional course, the development of educational sociology has been very slow. Research is more difficult in this field than in subjects in which more easily handled data are available. The tendency to rely upon authority in this field is marked. Greater cooperation among sociologists and redirection of objectives of the course are required in order to meet the specific needs of teachers. Basic preparation for work in the different fields of social endeavor could be stressed to advantage. The background of students and their professional needs might be given more consideration. Certainly teachers should be equipped to assist their students in effective participation in local civic activities. A good course in educational sociology should enable teachers more intelligently to revise and construct curricula in accordance with current social and educational needs.

OTHER CURRICULAR TENDENCIES

Health service.—Growing emphasis is noted in providing instruction in health, health education, and physical education. Physical examinations are required and correction of remedial defects undertaken by a growing number of institutions. Better opportunities for consultation on health matters, dispensary service, infirmary care, and hospitalization are reported by educational institutions each year. Suitable housing for the health service, health education, and physical education units are more commonly provided in the colleges, teacher-training institutions, and training schools. Formal

gymnastics and related types of work are replaced to a large extent by physical activities that contribute more directly to the health, happiness, and physical efficiency of future teachers.

Research by classroom teachers.—While opportunities for research by classroom teachers are limited they should at least acquire sufficient familiarity with research methods in the training institutions to evaluate and read intelligently the growing amount of material based upon scientific studies in their field of work. Progressive teachers in the public schools are finding opportunity to apply in their classrooms the simpler research techniques concerning which they have been informed in the teacher-preparing institutions. Thus the teacher may grow in her understanding of the immediate problems of her work. For instance, although teachers have always in some way studied individual needs of pupils many instructors are now adopting more intensive and thoroughgoing investigations by undertaking case studies of the mental behavior of pupils. It is possible, too, for qualified teachers to undertake experimental studies of the effectiveness of different classroom procedures.

Textbooks.—Greater emphasis is now recommended by many authorities upon local initiative on the part of teacher-training institutions in the selection of textbooks both for regular classes and for the training school. Needs of pupils rather than needs for formal organization of subject matter or the inclusion of traditional material are recommended. More emphasis on the training of teachers in respect to the selection of textbooks is noted in some progressive institutions.

Libraries.—Progress has been made during the last half of the decade in increasing the size of libraries in teacher-preparing institutions. The average teachers college library acquired more than 3,000 additional volumes during the last half of the decade, typical institutions now having a total of from 15,000 to 20,000 volumes each. The number of periodicals made available to students in such institutions appears to be increasing also. The proportionate expenditure for the libraries in teachers colleges in comparison with the expenditures for the entire institution appears to have increased somewhat. Teacher-training instructors and officials have changed their attitude toward the use and value of the library very greatly during comparatively recent years. The time is within the memory of many teachers when the library was open only two or three days per week and when the textbook was almost the only written source of preparation for the class work of the institution.

The rapid expansion and diversification during the century of public-school offerings demand the preparation of teachers in many new fields. Obviously more or less static courses of the traditional

college curricula and the decidedly limited offerings of the relatively small normal schools and teachers colleges must be developed rapidly if modern public-school needs are to be met satisfactorily. While much progress has been made in meeting such needs, too many institutions have not yet awakened to the new responsibilities of a changing age.

OBSERVATION AND STUDENT TEACHING

Observation and student teaching is probably the most important of the strictly professional courses. To provide satisfactory plants or classrooms and staffs is expensive and few if any institutions have reached maximum effectiveness in the conduct of training laboratory work. Small arts and science colleges of the traditional type especially are often lacking in adequate practice facilities.

Twenty-four States now require student teaching for one or more certificates. In the States where such work is required, the prescription ranges from two to seven semester hours, the median being about five semester hours. Despite the rapid extension of student teaching in modern teacher-preparing institutions, probably half or more of the beginning teachers of this country have not had such work. Elementary-school teachers make a much better showing in this respect than high-school teachers, and graduates of normal schools and teachers colleges in which student teaching is almost a universal requirement make a better showing than graduates of liberal arts colleges.

There is a very great range in the amount of training laboratory work required for graduation by the normal schools and teachers colleges. The number of clock hours per student varied in the State normal schools in 1929–30 from 20 to 700, and in the teachers colleges from 60 to 570. Central tendencies in requirements during different periods are shown in Table 4.

TABLE 4.—*Amount of teacher-preparing laboratory work required by different types of teachers colleges and normal schools*

Type of institution	Median number of clock hours required in—		
	1917–18	1921–22	1929–30
State normal schools	180	180	190
City normal schools	462	413–450	270
County normal schools	54	45	26
Private normal schools	180	300	225
Teachers colleges	----------	120–135	150

As a result in part from demands of the public schools, there is a tendency away from the practice of offering student teaching in one

subject or with one grade or class only to a student in his practice work. Beginning teachers in large numbers enter work in small places where the common assignment of work includes two or three subjects, and often two or more grades. The belief is growing that student-teaching assignments should be made to fit the actual teaching situation the student will later have to meet. Some authorities advocate practice for typical inexperienced teachers in as many as three or four different subjects.[3]

Progressive institutions are now giving more attention in their student-teaching programs to training for specific aspects of teaching such as assignments, supervised study, socialized recitations, and the organization of projects. Less tendency exists to introduce purely formal tasks in the work of the student teacher. The course is usually considered to be of most benefit to teachers during their first year out of the training institution. Hence, it is designed primarily to meet the needs of beginning teachers. There is no indication that student teaching can successfully be substituted wholly for practical experience on the job. The training secured by directed observation of expert teaching, however, undoubtedly serves to facilitate the mastery of the problems presented in regular teaching.

Considerable demand has arisen for the investigation of the relative advantages of well-conducted demonstration work as compared with actual student teaching. Demonstration work is relatively less expensive and less difficult to provide. It is too frequently offered as a substitute for student teaching by institutions with a limited outlook on the whole program of the specific preparation of teachers. Excellent work in demonstration, however, is sometimes offered by the better teacher-preparing institutions. Both practice and demonstration appear to be needed. Neither, therefore, should be neglected. The proportion of each that should be required is not so easy to determine.

Many factors condition the effectiveness of observation, participation, and student teaching. The chief weakness of observation as ordinarily conducted arises from the difficulty experienced in securing accurate data during the observation period for use in subsequent discussions or analyses. The result is that the discussions are usually too general and conclusions are frequently erroneous. Indifferent and untrained observers too often obtain only superficial impressions at the demonstration lesson. It is difficult to measure actual pupil achievement merely by observing a recitation. The tendency nowadays in the best training schools is to have the observers secure as

[3] Mead, Arthur Raymond. Supervised Student Teaching. Richmond, Johnson Publishing Co., 1930.

much objective evidence of pupil achievement as possible. Supervising teachers also plan the work with more care.

Participation, usually considered as an intermediate step between observation and student teaching, is conducted in a wide variety of ways and with varying degrees of efficiency among the institutions. As an isolated function organized apart from other practice work, participation is generally conceded to be more or less a waste of time. When combined with observation, student teaching and other similar activities, the results are usually satisfactory. Induction into actual teaching is made easier for the student by previous participation. He also profits by actual experience in certain phases of instructional work. Careful planning under trained leadership is essential in participation as well as in observation, if the best results are to be secured.

Staff.—To build up the qualifications of the training school supervisory staff is one of the most difficult problems confronting teacher-preparing institutions. A comparatively large number of critic teachers are required to meet commonly accepted standards. These workers are, therefore, utilized in considerable numbers directly from the public schools. Frequently the institutions have had little control over the initial selection of public-school teachers who are not staff members but are assigned to supervision of student teaching. As a result many such teachers are lacking in scholastic achievement and professional training, although possessing successful classroom experience. Vigorous efforts have been made by the American Association of Teachers Colleges and others to have institutions raise the qualifications of critic teachers. The standards adopted by the association provide that the present minimum scholastic requirement shall be graduation from a college of recognized standing or its equivalent. Within a period of six years the requirement is to be advanced so that the teachers must have the same training as the regular instructors in the college department, that is, college graduation plus a year of graduate study or the equivalent. While there is no desire to discount the recognized value of superior teaching ability that must be possessed by critic teachers, scholastic achievement is also stressed.

The principal obstacle in advancing the academic qualifications of the training school supervisory staff is the prevailing low salaries paid its members. In 1930–31 the median salaries of critic teachers in 117 institutions were $1,990 for nine months' work, and $2,400 on a basis of 9 months' work plus the summer session. The increase during the decade is not known exactly, but available figures indicate that only a very small advance in compensation has occurred. The

median salary of public-school teachers in cities of more than 100,000 population is about $2,250, so that the median salary of critic teachers on a 9-month basis is $260 less annually than that of ordinary classroom teachers in the type of cities indicated.

Plant.—An adequate training school physical plant is essential if efficient student teaching is to be conducted. There has been a marked improvement in such facilities during recent years. A considerable number of the larger institutions have erected new training school plants with all of the latest accessories, while others have enlarged and improved old plants. Among the institutions that have constructed new training-school buildings or classroom-practice units worthy of particular note are Kalamazoo, Mich.; Kirksville, Mo.; Johnson City, Tenn.; Bowling Green, Ky.; Ypsilanti, Mich.; Buffalo, N. Y.; and George Peabody College for Teachers, Nashville, Tenn. Some of the larger colleges and universities also have constructed training schools as well as separate housing units for their schools and colleges of education. The principal changes in the design of training-school units include provision of small groups of rooms for each critic teacher rather than a single large classroom; more office and workroom space for student teachers; and better planning of classrooms in respect to lighting, seating, and facilities for observers. Much more space is provided in the modern plants for special nonacademic subjects and activities, and for health and physical welfare programs for training-school pupils.

PLACEMENT, SELECTION, AND INSERVICE TRAINING OF TEACHERS

Teacher placement.—Inservice assistance to graduates should begin with the placement office. The conception has grown slowly that institutional service to the State is not completed upon the graduation of prospective teachers, but that the institutions are under obligation not only to see that their product is placed to best advantage in the public schools but also that the inevitable difficulties of young teachers during the first year or two of teaching are successfully mastered.

There appears to be a tendency more clearly to professionalize the work of placement officers which in the past often has been regarded as a mere clerical function. Progressive placement bureaus have assumed in some instances the responsibility of a certain amount of vocational guidance during the student's college career. It is evident that the well-organized placement office is in a position to afford valuable assistance to employers of teachers. This may be accomplished by the maintenance of records by which evaluations of considerable accuracy may be made of the qualifications of applicants

for teaching positions. It is essential that high-grade placement personnel be employed who are thoroughly acquainted with the actual needs of the public schools. The assumption of professional activities by placement officers entails responsibility for the success or failure of students placed on their recommendation. A close follow-up record of the teachers placed must consequently be kept. This office when fully developed affords the institution an invaluable source of contact with its product.

Selection of teachers.—Careful selection of teachers by school officials is essential. This not only advances efficiency in public-school teaching but affords assistance to teacher-preparing institutions in their efforts to raise the level of qualifications of members of the profession. The importance of the problem is illustrated by the fact that each year approximately one teacher in four in small towns and villages is a new appointee. While in some of the larger city school systems the number of new staff members is a small percentage annually of the entire staff, the total number of new teachers employed may reach as high as several hundred. County superintendents and small independent high-school principals have the most difficult job in teacher selection since their turnover is very large and they suffer under the handicap of a limited choice of qualified applicants. Opposite conditions are faced by city superintendents, who generally have a surplus of candidates.

In the larger cities from one-half to two-thirds of the teachers appointed make their first contacts with employing officials by direct applications. In smaller places, considerable use is made of placement bureaus of teacher-preparing institutions which serve many young and inexperienced teachers just out of college or normal school. Municipal normal schools and teachers colleges usually constitute the largest single source of teacher supply in the cities in which they are located. State appointment bureaus and State teachers association placement bureaus are still in their infancy except in a few States. They supply, therefore, only a very small percentage of applicants for teaching positions in the country as a whole. Commercial teachers agencies place a large proportion of their registrants in rural and small-town schools. School officials seldom make personal visits to other school systems for the purpose of recruiting teachers.

The selecting official in all except the smaller communities is most commonly the superintendent or one of his assistants or principals. This is still far from a universal practice, however, especially in rural schools or small towns where acquaintance with school-board members is not without substantial advantage to applicants. While the actual selection of teachers is now performed with more care

than in the past, progress toward scientific methods of selection is slow. Although one of the most important duties of the school executive, teacher selection is still made typically without intensive and thorough study of the qualifications of the candidates and with little significant objective data concerning them at hand. Minimum requirements of mastery of academic and professional subjects is generally enforced on a basis of State certification requirements. Emphasis is frequently placed upon such traits as superior personality, general culture, and social adaptability. Successful teaching experience for a year or two is demanded before appointment to a growing number of positions in city-school systems.

Means adopted for inservice training.—In 1927–28 there were 75,413 students enrolled in teacher-training extension and correspondence courses of collegiate grade. This is equal to more than one-fourth of the total number of students attending teacher-preparing institutions. Summer sessions also have for many years constituted one of the chief means for the improvement for teachers in service. About four-sevenths of the resident students in the teachers colleges in 1927–28 attended summer sessions. The proportion of resident students enrolled in summer sessions increased approximately one-eighth during the decade. It is estimated that one-half of the 420,000 students enrolled in summer sessions are teachers.

In a few States a certain amount of rural school supervision is being done by the teacher-preparing institutions. For instance, in the case of the school at Bowling Green, Ky., 10 or 12 experienced teachers are sent out each autumn to assist teachers on the job and to hold conferences with them. The Madison (S. Dak.) institution has organized a visiting field service composed of seven supervisors who stay for one week in the field. The institutions at Winona, Minn., and at Carbondale, Ill., send faculty members into rural schools to give demonstration lessons. The University of North Carolina and other higher institutions have built up noteworthy programs of assistance to teachers in surrounding communities.

The traditional type of teachers institute is slowly being supplanted by more modern means of inservice training which are employed by the training institutions. Conditions that originally led to the conduct of annual institutes appear to be slowly disappearing. Residence work, summer sessions, extension work, and other means of inservice education are supplanting them.

More than 30 different methods of inservice preparation have been reported by different school systems during the biennium. Among those most commonly employed in addition to those previously mentioned are the following: Regular public-school supervision; study groups and committee work; local teachers meetings; teachers State

and national association meetings and activities; semisupervisory inspectorial work; reading circles and courses; demonstration of skilled teaching; intervisitation of teachers, exchange of teachers among classrooms, buildings, or cities; provision of helping or assisting teachers; substitute teaching (as means of induction into regular instruction); special conferences and meetings of young teachers; teaching center plan, e. g., Buffalo plan (discontinued in 1930); self-help through teachers reading, use of libraries and other similar personally devised means of self-improvement; and travel.

RESEARCH AND PUBLICATIONS

Graduate schools of education constitute one of the chief agencies for conducting research in the preparation of teachers. The rapid growth in numbers of departments, schools, and colleges of education in higher institutions has been indicated elsewhere. Several institutions, such as Teachers College (Columbia University), New York University, University of Chicago, Ohio State University, Stanford University, George Peabody College for Teachers, and others, now offer graduate instruction and conduct research specifically in the field of teacher preparation. The number of theses in this field increased several times over during the decade.

Numerous agencies in addition to the colleges and universities contribute to the increasing number of research studies, semiscientific investigations, and published discussions. Nearly all the many agencies engaged in general educational research have contributed more or less to the volume of material now available in printed form, of which more than 1,500 titles have been listed by the Office of Education. Institutional bureaus of research, national and regional accrediting associations, State departments of education, municipal bureaus of research, educational foundations, teachers associations, and Federal and other agencies have all participated in securing and disseminating information concerning teacher preparation.

Several State, institutional, and other surveys in recent years have given consideration to the problems of teacher preparation as part of such investigations. Among these surveys are those conducted by the Office of Education, including those of Arkansas, Oregon, and the land-grant colleges. During the decade a movement began which culminated in 1930 in the most extensive survey of teacher preparation for the country as a whole that has ever been undertaken. The nature and extent of this investigation merits brief separate consideration.

National survey of the education of teachers.—This national study began July 1, 1930, and will extend over a period of three years. The purpose of the investigation, as stated in the act of Congress

authorizing it, is "to make a study of the qualifications of teachers in public schools, the supply of available teachers, the facilities available and needed for teacher training, including courses of study and methods of teaching." Congress has authorized $200,000 for the study.

Dr. William John Cooper, commissioner of education, serves as director of the survey, and Dr. E. S. Evenden, professor of education, Teachers College, Columbia University, is associate director. The senior specialist in teacher training of the Office of Education assists in administrative matters. A large number of specialists in various aspects of teacher preparation throughout the country will assist in this study.

A board of consultants consisting of 12 members has been appointed to pass upon survey plans and policies. In addition to the board of consultants, a professional advisory committee has been organized. About 50 leading educators representing various important groups interested in teacher preparation have been selected to serve on this committee. At a later date an advisory committee consisting of prominent laymen will also be appointed.

The major projects undertaken are set up in accordance with the wording of the act authorizing the survey. The first study of teacher status in respect to supply, demand, training, experience, type of work in relation to the amount and kind of training, and similar questions involved the sending out of almost a million copies of a brief questionnaire to all the public-school teachers of this country.

Among the first studies undertaken may also be mentioned the preparation of an annotated bibliography on teacher training; a history of teacher preparation; a study of inservice teacher education; a study of the reading interests of teachers and of the library facilities in teacher-training institutions; studies of the curricula for preparation of teachers; supply of and demand for teachers; and numerous other studies.

This extensive investigation should be of considerable service to workers and students in the field, and should assist materially in integrating existing findings, devising or applying research techniques, collecting facts, and advancing in general the irregular frontier of knowledge concerning the professional education of teachers.

SUMMARY

The present oversupply of certificated teachers in some teaching fields is believed by many to be temporary. The final results of present conditions will be much more fortunate if existing opportunities are utilized to raise standards for admission to teacher-preparing curricula, to strengthen certification requirements, and to maintain or advance teachers salaries. Otherwise the gains in the

general level of teacher qualifications made during the present century may in part be lost.

The steady centralization of control of State teacher-preparing institutions during the past in State departments of education, or in other central State administrative agencies, will probably continue. This movement, judging from past experience, will be accompanied by closer integration of the activities and offerings of such institutions with those of the public schools of the several States.

As institutional offerings are increasingly designed for the primary purpose of the professional education of teachers, greater integration of laboratory school activities, offerings in professional education, and offerings in academic and nonacademic courses will probably be attained. Progress in this respect has been slow, but the ideal of mobilizing the entire forces of strictly teacher-preparing institutions to the single end of genuine professional preparation for graduates of such institutions is being attained in a growing number of schools.

The rapid transformation of two and three year normal schools into degree-granting institutions, and the increase in the number of departments of education in the colleges and universities, have been noteworthy tendencies during the decade. These developments have contributed materially toward the attainment of genuine professional preparation of teachers. All indications are that this movement will continue.

Financial support of institutions that prepare teachers has increased several times over the decade. The preparation of teachers is not a function that in itself attracts marked public interest and only a few of the devices commonly employed by colleges and universities to keep their needs in the public eye are employed widely by normal schools and teachers colleges. Nevertheless, the necessity for safeguarding the taxpayers' large annual investment in public education by providing qualified workers in the schools is held in mind to a growing extent by State legislatures. The steady gains in the amount of financial support accorded the teacher-training institutions will probably be continued, despite business and industrial depression, with the expected outcome of higher levels of training for teachers and a closer approach to the professionalization of such workers.

The academic and professional preparation of teaching staffs of the institutions has been advanced during the decade. An increasing supply of professionally trained applicants, more rigorous standards of employment, improved personnel management, the efforts of accrediting associations, provisions for training in service, and other factors have aided materially in this movement.

Considerable discontent has been expressed in the past with the quality of human material presented to the teacher-preparing in-

stitutions for training. Not only selective admission, but also guidance extending into the high schools with the purpose of inducing better students to enter the profession of teaching as well as discouraging the entrance of the unfit are being advocated; and in some institutions, especially in the municipalities, such efforts are being rewarded by the attainment of higher general levels of native ability and of preliminary preparation of the student body.

More attention is now being paid to provisions for student welfare in the institutions, and to institutional means for the general all-around development of the prospective teacher. More effective provisions for extracurricular activities, more adequate offerings in physical education and health, better living conditions, and more ample provisions of institutional experiences that develop a wider cultural background and finer professional attitudes now characterize the programs of progressive institutions.

Research in curricular problems has increased during recent years, tentative principles of curricular construction have been formulated and applied, detailed analyses of teachers' activities have been made, topical and course analyses attempted, and many cooperative institutional or state-wide curricular studies undertaken. Curriculum construction is admittedly complex and difficult. Imitation by small or weak institutions of offerings of larger schools is rife. The influence of tradition is strong. Nevertheless the inculcation of modern educational thinking is becoming more and more evident in present-day curricula. It must still be said, however, that detailed and long-continued research is necessary before wholly satisfactory progress can be made in solving the outstanding problems in this field.

Fundamental questions concerning the nature, amount, and effectiveness of observation and student teaching confront the officials of teacher-preparing institutions everywhere, but there is no apparent lack of faith by such officials in the importance of practical laboratory work of this kind. The maintenance of accepted standards in this field is difficult, owing to the expense of maintaining the comparatively large staffs required and of providing suitable plants. Since the nature and extent of offerings and facilities in observation and student teaching are often considered a good measure of the merit of professional offerings of the institution as a whole, earnest efforts are made by the best institutions to reach the maximum effectiveness possible in the training school.

A growing number of institutions have extended their activities to include a certain amount of inservice work with their graduates and ex-students, and thus round out the scope of service to their product. It is becoming more clearly realized than ever before that professional education is by no means complete at the end of a comparatively brief period of preservice training. Many excellent oppor-

tunities are afforded during inservice work that have not yet been fully utilized by teacher-preparing institutions in devising more effective techniques of teacher preparation, and in the general advancement of the profession of teaching.

The amount of research work specifically in the field of teacher preparation has increased several times over during the past 10 years and the number of scientific and semiscientific studies has more than doubled during the past two years alone. In comparison with actual needs for research and study, however, a beginning only has been made in needed investigations.

By the utilization of scientific methods, the establishment of better standards and the creation of more satisfactory norms of practice have been rendered possible. New techniques of research have been devised, refinements in methods of instruction have been made, and a growing body of literature in the field has accumulated. Contributing to this movement have been the upbuilding of graduate schools and colleges and departments of education, the establishment of psychological laboratories, the inauguration of intensive research in the field of child study, the application of psychological measurements of various kinds, the conduct of surveys, and other developments.

It must be realized, however, that despite the gains made through research and study during this period of rapid advancement, standards and norms so far set up are still tentative in nature. It can not be assumed that even the best of present practice is the final word. The time, therefore, has not yet arrived for the complete stabilization of practices in the education of teachers. Some standardization is undoubtedly desirable but experimentation still is essential. As means become available to carry through more intensive research and study, leaders in teacher preparation in the future may find it necessary to modify many of the fundamental assumptions now set up as bases for current practice in the education of teachers.

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CHAPTER XV

MEDICAL EDUCATION

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Contents.—Introduction—Changes in medical education—Number of physicians—Premedical education—Medical education—The interneship—Other medical institutions—Basic science boards—Postgraduate medical education—Changes in medical practice.

INTRODUCTION

Probably the most significant development in medical education during the past two years has been the change in attitude of the Federation of State Medical Boards toward certain aspects of professional education. The various States have set up requirements for medical practice and education and in doing so have exerted a great influence in elevating standards of training through the prescription of the details of the medical curriculum and the legal standing of the medical schools. Medical education in the United States has also been regulated by the specifications and rules of several other agencies. The American Medical Association has been classifying medical schools since 1907 on the basis of buildings, equipment, personnel, administration, and the results of the examinations of the graduates of each school before the State medical boards. The Association of American Medical Colleges has devoted itself particularly to the problems of the curriculum and to the inspection of medical schools.

These various efforts to elevate and standardize medical education and medical schools have largely eliminated the proprietary and commercial schools and have established certain minimal requirements which are regarded as necessary for proper medical training. While these regulations of various kinds have been largely responsible for the elevation of the standards of medical training, they have led to much rigidity and overregulation which have come to be widely regarded as undesirable, particularly in the extent to which the rigidity and regulation have handicapped the application of sound principles of education. At no period in history have there been such rapid additions to knowledge regarding disease and health. Medical faculties as well as licensing bodies have endeavored to add new subjects and to institute new requirements and examinations so rapidly that great overcrowding of the curriculum has resulted.

This confusing state of affairs had led to a growing unwillingness on the part of universities and educational bodies concerned with medical education to approve or apply further regulations until some of the confusion was clarified. The Commission on Medical Education was organized in 1925 by the Association of American Medical Colleges to make a study which might become the basis for action on the part of the regulatory bodies and the various organizations concerned with both general and medical education in formulating requirements for licensure and training. It was hoped that a study of this kind might establish certain fundamental relationships which, if accepted, would allow the universities greater freedom in their endeavor to modify the rigid, overcrowded, and overstandardized curriculum and to conduct medical training along more sound educational lines. At its first meeting in the fall of 1925 the suggestion was made to the Association of American Medical Colleges and to the Federation of State Medical Boards that a truce of a limited number of years be established, during which any medical school of approved standards which desired to do so might experiment with medical education without penalty to its graduates. It was the hope at that time that some more permanent understanding might be established later.

In 1929 the Federation of State Medical Boards adopted the following resolution:

Resolved, That in each State the medical practice act and its administration conform as far as possible to the educational principles of the Association of American Medical Colleges.

A revision of the constitution and by-laws of that federation was adopted in February, 1930, and contains under Article II the following provisions:

In all matters of premedical education, courses of study, and educational requirements for the degree of doctor of medicine or its equivalent, the federation recognizes the Association of American Medical Colleges as the standardizing agency for this purpose.

The federation regards as its proper function (*a*) the determining of fitness for the practice of medicine, and (*b*) the enforcement of regulatory measures.

CHANGES IN MEDICAL EDUCATION

There have been a great many modifications in medical education during the last few years in response to the changing point of view regarding professional training which can not be presented statistically. True education is self-education, and standardization, uniformity, rigidity, and regulations are not the best means of promoting intellectual self-reliance, although it is perfectly clear that such methods were necessary to bring medical education in this country out of the chaos that existed 20 years ago.

There is a growing appreciation that medical education must be integrated more closely with general education on the one hand and

the medical needs of the community on the other. The premedical student, the medical student, the interne, the practitioner, the specialist and the public health officer should be looked on from an educational point of view as merely different stages in the training of personnel to meet the medical needs of the community. Changes made in the methods of training for one stage must consider the necessity of adjustments in the others. The educational sequence from college preparation to retirement from professional life should be looked upon broadly as a group of interdependent experiences, not as a succession of isolated and unrelated episodes.

There is now a definite shift in a majority of medical schools toward placing greater responsibility on the student for his own training in order to individualize instruction and provide opportunities for learning, self-development, and self-education. This new emphasis is illustrated by the breaking down of the rigid class system; the discontinuance of uniform time and course schedules; the introduction of small teaching sections; personal contacts between students and instructors; provision for reasonable free time for reading, individual work, and leisure; a reduction in the amount of lecturing and the providing of opportunities for students who desire and are competent to do independent work. The aim is to develop minds capable of finding and appraising evidence and drawing conclusions based on sound reasoning which will provide a permanent intellectual equipment, resourcefulness and sound habits as well as methods of study that will permit the student to continue his own self-education throughout his entire professional life, a continuing education which has been emphasized repeatedly as a most important factor in providing an adequate medical service for the country.

As a part of this change there are significant modifications in the content and scope of the basic medical course. Until recently an effort has been made to familiarize the student as far as time, energy, and capacity permitted with all the facts and methods in every field of medicine. Reacting to the obvious fact that no individual can master all phases of medical knowledge, the various courses are being made introductory in character with emphasis particularly on principles, leaving the training in technical methods and details to be obtained later in the course or as postgraduate training.

The course is coming to be looked upon again as a unit. Efforts are being made to correlate the learning in the various subjects that have become isolated in the recent era of overspecialization and of emphasis on mechanical and laboratory procedures, by the demonstration of normal and abnormal features of structure and function in living human beings as part of the course in anatomy and physiology; by making the basic sciences a more vital part of clinical medicine; by the case method of study; by the simplification of clinical instruction

through consolidating it under three or four major divisions, postponing some of the specialized procedures to postgraduate training; by joint clinics; and by the use of comprehensive examinations as illustrations. Greater emphasis is being placed in some of the schools on study of the patient as a whole, in which factors of emotional life, conditions of employment, habits of living, family life, and other human factors are considered in arriving at a diagnosis or in outlining treatment.

Many diseases and disabilities are known to be preventable, and the instruction now is emphasizing the preventive aspects of each subject. A sound knowledge of anatomy and physiology is the basis of preventive medicine quite as much as it is of disease and abnormality. Periodic medical examinations, knowledge of the mental and physical development of normal infants and children, prenatal care, the value of rest, diet, sunlight, exercise, and diversion, as well as the early diagnosis and treatment of the beginnings of disease, need only be mentioned to suggest a wide application of sound principles in relation to prevention as well as to treatment. An effort is being made to equip students to understand the complete medical needs of families as well as individuals.

Another development of importance has been the increasing numbers of students seeking admission to the medical schools in this country as indicated from the following figures: [1]

	1926–27	1927–28	1928–29	1929–30
Number of applications	20,093	23,590	29,166	31,481
Number of applicants	8,500	11,282	12,537	13,569
Number of applicants accepted	6,420	6,495	7,014	7,019
Number of applicants enrolled [1]	6,009	6,199	6,277	6,457

[1] Differences between "enrolled" and "accepted" due largely to multiple acceptances.

Many of the students who have been unable to get into medical schools in this country have endeavored to secure admission to medical schools abroad, particularly in Scotland. It is reported that more than 800 American students have applied to a single school in Scotland in 1930. Not very many American students have been accepted by the foreign medical schools, chiefly because a very large majority of the American students applying for admission to medical schools abroad have not been able to get into a school in this country and the British and other foreign schools are reluctant to accept these students when they have responsibilities for training their own.

[1] From studies made by Dr. Burton D. Myers, University of Indiana Medical School.

NUMBER OF PHYSICIANS

This pressure on the medical faculties from applicants for admission to the medical schools has been interpreted by some to indicate the need for more facilities for medical education in this country. But this is not the basis on which such a question should be decided. The need for additional facilities for medical training must be judged ultimately on the need of the country for physicians and the extent to which present facilities meet that need. The 66 approved 4-year medical schools in the United States [2] graduated as many physicians in 1930 as the 131 medical schools did in 1910. The number of medical graduates promises to increase further in the next few years, due to the increased number of students admitted to the medical schools in recent years but, more particularly, because a much higher percentage of those who enroll in the medical schools will graduate. This latter fact is due to the more careful selection of first-year medical students from the large numbers of applicants.

The approximate number of persons per physician in a few representative countries is given in the following data: United States, 800; Switzerland, 1,250; Denmark, 1,430; England and Wales, 1,490; Germany, 1,560; France, 1,690; The Netherlands, 1,820; and Sweden, 2,860.

The number of medical graduates and the ratio of physicians to population are not the only considerations, however, for the distribution of recent graduates and overspecialization among them are a few features of the larger questions of supplying medical personnel to meet the needs of the country.

Much has been said recently about the increasing length of medical training, but a larger number of students each year apply for admission to the medical schools who have completed more than the minimal requirements for admission than the medical schools of the country can accommodate. The number of students who have completed a full college course before entering upon their medical training has increased steadily and this year represented 50 per cent of the first-year class. Many students take combined academic and medical courses which give them a baccalaureate degree at the end of the first or second year of medicine. About 70 per cent of the medical graduates of 1930 had a bachelor's degree, compared with 15 per cent in 1910 and 24 per cent in 1920.

[2] 10 other approved schools provide only the first 2 years of instruction.

The ages of the graduates of 1929 are shown in Table 1.[3]

TABLE 1.—*Age of medical graduates, 1929*

Age:	Graduates	Age:	Graduates
21 years	9	30 years	146
22 years	64	31 years	130
23 years	297	32 years	79
24 years	712	33 years	62
25 years	865	34 years	42
26 years	816	35 years	32
27 years	542	Over 35 years	89
28 years	310		
29 years	251	Total	4, 446

PREMEDICAL EDUCATION

The medical students admitted for the academic year 1929–30 received their premedical training in 804 different colleges, junior colleges, and other instututions of learning. Three hundred and fifty-two of these institutions were not on the approved list of the agencies accredited by the Council on Medical Education and Hospitals of the American Medical Association. Seventy-eight of the institutions in this category were outside of the United States and hence not under the standardization program. There were, however, 125 junior colleges in which premedical training was taken and only 41 of those had been approved by any of the accredited standardizing agencies.

The standardizing agencies to which reference is made are given in Table 2. Ninety two per cent of the entering medical class of 1929–30 received its premedical training in 452 of the institutions approved by these standardizing agencies.

TABLE 2.—*Approved colleges*

Associations:	Number of colleges
Association of American Universities	246
North Central Association of Colleges and Secondary Schools	243
Southern Association of Colleges and Secondary Schools	132
Association of Colleges and Secondary Schools of the Middle States and Maryland	100
Northwest Association of Secondary and Higher Schools	30
New England Association of Colleges and Secondary Schools	28
Total (omitting 230 duplicates)	549

Data on the qualifications of students entering the medical schools in 1929–30 are given in Table 3.

[3] This and subsequent tables are taken from the educational and State board numbers of the Journal of the American Medical Association.

TABLE 3.—*Premedical training, entering class 1929–30*

	Total	Per cent
Colleges approved by accredited agencies	5,566	86.2
Transferred to approved colleges after one or more years elsewhere	350	5.4
Other colleges	453	7.0
Transferred to other colleges after one or more years in an approved college	88	1.4
Total registration	6,457	100.0

A summary of the preliminary college training of the entering class of 1929–30 is given in Table 4.

TABLE 4.—*Length of premedical college training*

	No degree	Degree
1 year	1,753	111
2 years	2,124	289
3 years	1,510	336
4 years	194	2,085
Total	5,581	2,821

MEDICAL EDUCATION

Table 5 gives the data on the number of medical colleges, students, and graduates for a number of years.

TABLE 5.—*Number of medical colleges, students, and graduates, 1880–1930*

Year	Number of colleges	Students	Graduates	A.B. or B.S.	Per cent
1880	100	11,826	3,241		
1890	133	15,404	4,454		
1900	160	25,171	5,214		
1904	160	28,142	5,747		
1906	162	25,204	5,364		
1910	131	21,526	4,440	680	15.3
1915	96	14,891	3,536	858	24.3
1920	85	13,798	3,047	1,321	43.5
1921	83	14,466	3,192	1,465	46.0
1922	81	15,635	2,529	1,455	57.5
1923	80	16,960	3,120	1,787	57.3
1924	79	17,728	3,562	2,020	56.7
1925	80	18,200	3,974	2,431	61.2
1926	79	18,840	3,962	2,388	60.3
1927	80	19,662	4,035	2,486	61.5
1928	80	20,545	4,262	2,708	63.5
1929	76	20,878	4,446	2,951	66.4
1930	76	21,597	4,565	3,211	70.0

The statistics of medical schools in the United States and the Philippine Islands are shown in Table 6.

TABLE 6.—*Medical schools in the United States*

Name of school	Number of students		Graduates, 1930		Graduates with A. B., B. S., or Ph. B.
	Men	Women	Men	Women	
ALABAMA					
University of Alabama School of Medicine [1]	102	1	----	----	----
ARKANSAS					
University of Arkansas School of Medicine	160	2	29	----	20
CALIFORNIA					
College of Medical Evangelists	343	27	63	5	44
Stanford University School of Medicine	178	15	40	2	42
University of California Medical School	195	32	45	5	50
University of Southern California School of Medicine	93	8	----	----	----
COLORADO					
University of Colorado School of Medicine	193	12	38	5	25
CONNECTICUT					
Yale University School of Medicine	196	16	47	6	50
DISTRICT OF COLUMBIA					
Georgetown University School of Medicine	515	----	100	----	20
George Washington University Medical School	270	9	44	1	21
Howard University School of Medicine	233	8	61	3	55
GEORGIA					
Emory University School of Medicine	196	----	46	----	20
University of Georgia Medical Department	136	4	29	1	5
ILLINOIS					
Loyola University School of Medicine	483	13	89	2	75
Northwestern University Medical School	508	14	121	4	78
University of Chicago, Graduate School of Medicine of the Ogden Graduate School of Science	263	28	----	----	----
University of Chicago, Rush Medical College	314	30	139	11	150
University of Illinois College of Medicine	534	15	116	6	104
INDIANA					
Indiana University School of Medicine	407	17	103	----	92
IOWA					
State University of Iowa College of Medicine	484	24	95	2	53
KANSAS					
University of Kansas School of Medicine	223	10	40	4	29
KENTUCKY					
University of Louisville School of Medicine	343	5	85	1	40
LOUISIANA					
Tulane University of Louisiana School of Medicine	415	17	94	3	65
MARYLAND					
Johns Hopkins University School of Medicine	250	33	57	12	69
University of Maryland School of Medicine and College of Physicians and Surgeons	404	10	84	3	41

[1] Gives only the first 2 years of the medical course.

TABLE 6.—*Medical schools in the United States*—Continued

Name of school	Number of students		Graduates, 1930		Graduates with A. B., B. S., or Ph. B.
	Men	Women	Men	Women	
MASSACHUSETTS					
Boston University School of Medicine	199	20	43	4	32
Harvard University Medical School	516		135		125
Tufts College Medical School	466	21	107	10	35
MICHIGAN					
University of Michigan Medical School	594	45	160	8	122
Detroit College of Medicine and Surgery	280	6	41	2	20
MINNESOTA					
University of Minnesota Medical School	501	27	129	4	133
MISSISSIPPI					
University of Mississippi School of Medicine [1]	64	2			
MISSOURI					
University of Missouri School of Medicine [1]	74				
St. Louis University School of Medicine	530		122		61
Washington University School of Medicine	298	10	74	4	50
NEBRASKA					
Creighton University School of Medicine	236	4	46	1	36
University of Nebraska College of Medicine	312	4	62	2	54
NEW HAMPSHIRE					
Dartmouth Medical School [1]	39				
NEW YORK					
Albany Medical College	123	5	19	1	11
University of Buffalo School of Medicine	275	9	65	3	21
Columbia University College of Physicians and Surgeons	390	33	97	7	101
Cornell University Medical College	205	36	47	9	56
Long Island College Hospital	431	7	100	0	49
New York Homeopathic Medical College and Flower Hospital	345	9	79	3	46
University and Bellevue Hospital Medical College	471	24	119	4	120
University of Rochester School of Medicine	121	12	21	3	20
Syracuse University College of Medicine	177	8	42	3	20
NORTH CAROLINA					
University of North Carolina School of Medicine [1]	78	4			
Duke University School of Medicine					
Wake Forest College School of Medicine [1]	53				10
NORTH DAKOTA					
University of North Dakota School of Medicine [1]	63				
OHIO					
University of Cincinnati College of Medicine	266	17	54	4	43
Western Reserve University School of Medicine	222	19	50	4	53
Ohio State University College of Medicine	298	13	56	5	36
OKLAHOMA					
University of Oklahoma School of Medicine	217	5	46	1	46
OREGON					
University of Oregon Medical School	213	14	41	1	42

[1] Gives only the first 2 years of the medical course.

TABLE 6.—*Medical schools in the United States*—Continued

Name of school	Number of students		Graduates, 1930		Graduates with A. B., B. S., or Ph. B.
	Men	Women	Men	Women	
PENNSYLVANIA					
Hahnemann Medical College amd Hospital of Philadelphia	470	-------	78	-------	27
Jefferson Medical College of Philadelphia	586	-------	140	-------	90
Temple University School of Medicine	285	5	53	-------	11
University of Pennsylvania School of Medicine	465	13	125	4	126
Woman's Medical College of Pennsylvania	-------	116	-------	14	7
University of Pittsburgh School of Medicine	246	14	56	4	54
SOUTH CAROLINA					
Medical College of the State of South Carolina	155	4	33	2	20
SOUTH DAKOTA					
University of South Dakota School of Medicine [1]	46	-------	-------	-------	-------
TENNESSEE					
University of Tennessee College of Medicine	396	9	84	2	35
Meharry Medical College	202	4	38	-------	31
Vanderbilt University School of Medicine	187	9	45	3	48
TEXAS					
Baylor University College of Medicine	361	10	84	3	36
University of Texas School of Medicine	296	12	42	2	31
UTAH					
University of Utah School of Medicine [1]	60	1	-------	-------	-------
VERMONT					
University of Vermont College of Medicine	146	10	27	3	17
VIRGINIA					
Medical College of Virginia	360	6	93	2	49
University of Virginia Department of Medicine	236	9	55	2	27
WEST VIRGINIA					
West Virginia University School of Medicine [1]	107	3	-------	-------	-------
WISCONSIN					
University of Wisconsin Medical School	282	22	36	2	38
Marquette University School of Medicine	261	4	52	2	42
PHILIPPINE ISLANDS					
University of the Philippines, College of Medicine and Surgery	298	62	28	3	5
University of St. Thomas, Faculty of Medicine and Surgury	896	-------	61	-------	-------
Total	20,642	955	4,361	204	3,211

[1] Gives only the first 2 years of the medical course.

The number of women in medical schools for several years is given in Table 7.

TABLE 7.—*Women in medical schools*

Year	Women students	Percentage of all students	Women graduates	Percentage of all graduates	Year	Women students	Percentage of all students	Women graduates	Percentage of all graduates
1904	1,129	4.8	198	3.4	1926	935	5.0	212	5.4
1910	907	4.5	116	2.6	1927	964	4.9	189	4.7
1915	592	4.3	92	2.6	1928	929	4.5	207	4.9
1920	818	6.3	122	4.0	1929	925	4.4	214	4.8
1925	910	5.2	204	5.1	1930	955	4.4	204	4.5

There has been a considerable increase in tuition fees during the last 20 years, as illustrated in Table 8.

TABLE 8.—*Tuition fees*

	1910	1915	1920	1925	1930		1910	1915	1920	1925	1930
Under $150	108	47	31	12	9	$300 to $350	------	------	3	19	10
$150 to $200	22	38	27	20	12	$350 to $450	------	------	1	3	21
$200 to $250	2	7	19	13	9	Over $450	------	------	------	------	9
$250 to $300	1	2	4	13	6						

A number of medical schools charge additional fees for nonresidents of the State. The schools that do so and the amounts of the additional fees are given in Table 9.

TABLE 9.—*Additional tuition fees for nonresidents*

State	Fees	State	Fees
Arkansas	$100	Missouri	[1] $10
California	300	North Dakota	135
Colorado	132	Ohio State	105
Georgia	300	Cincinnati	[2] 50
Illinois	35	Oklahoma	200
Indiana	75	Oregon	60
Iowa	264	South Dakota	50
Kansas	50	Texas	150
Maryland	150	Vermont	75
Michigan	80	Virginia	20
Detroit	85	Medical College of Virginia	100
Minnesota	75	West Virginia	250
Mississippi	50	Wisconsin	150

[1] Per term.
[2] Nonresidents of Cincinnati.
Nebraska variable.

THE INTERNESHIP

The medical course in the United States is ordinarily four years in length but there is an accepted belief that the four-year course should be supplemented by at least one year as an interne in a hospital. More than 90 per cent of medical graduates take such a hospital experience before going into practice. Six hundred and forty-eight hospitals provided 5,496 internships for the 4,565 medical graduates in 1930. Thirteen medical schools now require a fifth year to be spent by the student as an interne in an approved hospital or in some other acceptable work before the student receives his medical degree. The internship is also required now for medical licensure by 14 States. The medical schools which require the interneship for graduation are given in Table 10 and the States which make a similar requirement for licensure are given in Table 11.

TABLE 10.—*Medical schools which require interneship*

Institution	Affects matriculants	Affects graduates
University of Minnesota Medical School	1910–11	1915
Stanford University School of Medicine	1914–15	1919
Rush Medical College (University of Chicago)	1914–15	1919
University of California Medical School	1914–15	1919
Marquette University School of Medicine	1915–16	1920
Northwestern University Medical School	1915–16	1920
University of Illinois College of Medicine	1917–18	1922
Loyola University School of Medicine	1917–18	1922
Detroit College of Medicine and Surgery	1919–20	1924
University of Cincinnati College of Medicine	1922–23	1926
College of Medical Evangelists	1922–23	1927
Ogden Graduate School of Medicine (University of Chicago)	1925–26	1930
University of Oklahoma School of Medicine	1928–29	1933

TABLE 11.—*States which require interneship for licensure*

State	Affects student matriculants	Affects all applicants	State	Affects student matriculants	Affects all applicants
Pennsylvania	1909–10	1914	Illinois	1918–19	1923
New Jersey	1911–12	1916	Delaware	1919–20	1924
Alaska	1912–13	1917	Iowa	1919–20	1924
Rhode Island	1913–14	1918	South Dakota	1920–21	1925
North Dakota	1913–14	1918	Utah	1921–22	1926
Washington	1914–15	1919	Wisconsin	1922–23	1927
Michigan	1917–18	1922	District of Columbia	1924–25	1930

OTHER MEDICAL INSTITUTIONS

In addition to the 76 medical schools on the approved list of the American Medical Association in 1930, of which 10 provide only the first 2 years of instruction, there are 6 other institutions which have been refused recognition by the licensing boards of 46 States and the Territory of Alaska. These medical institutions are chartered as medical schools in Massachusetts, Illinois, and Missouri. As a rule, these institutions are recognized as medical schools only in the States in which they are chartered.

The number of foreign physicians licensed in recent years is given in Table 12.

TABLE 12.—*Foreign physicians licensed in United States, by years*

Year	Canada		Other foreign graduates		Total	
	Examined	Passed	Examined	Passed	Examined	Passed
1917	34	26	79	42	113	68
1918	29	19	45	28	74	47
1919	71	49	67	37	138	86
1920	85	64	86	53	171	117
1921	84	64	178	101	262	165
1922	73	64	186	110	259	174
1923	140	123	371	206	511	329
1924	212	198	591	360	803	558
1925	319	292	523	318	842	610
1926	305	287	330	196	635	483
1927	255	231	281	170	536	401
1928	278	258	188	97	466	355
1929	158	149	214	129	372	278
Total	2,043	1,824	3,139	1,847	5,182	3,671

BASIC SCIENCE BOARDS

During the time that the standards of medical education have risen to a basis comparable with those in other countries and many inferior or commercial medical schools have been discontinued, there has been a rapid growth of various cults practicing the healing art and a rapid increase in a variety of cult schools. The number of these schools is now decreasing, however, as the public begins to recognize the importance of properly trained and educated professional workers in health work. A number of the States have recognized these cults by creating licensing boards corresponding to the State medical boards. More recently, some of the State legislatures have realized the necessity of a sound basic education in the medical sciences as a prerequisite for medical practice under whatever guise it may be labeled and have endeavored to bring all boards licensing individuals to practice the healing art to a common basic requirement in those sciences.

Six States [4] and the District of Columbia have established basic science boards whose function is to insure as far as practicable that all practitioners of the healing art shall have had at least a minimal amount of training in anatomy, physiology, bacteriology, pathology, and chemistry. The requirements of these boards are below the requirements of medical training, and the necessity of qualified medical graduates taking the examinations of these boards, which have been set up usually as a compromise, is only a fruitless gesture and a great as well as needless inconvenience so far as properly trained medical graduates are concerned. Compromise with substandard training for those who deal with the health of the people is not sound public policy and it is to be hoped that other States will not follow the plan of giving permanent, legal recognition of substandard medical training and make it increasingly difficult to place medical licensure in this country on a sound basis through the control of educational standards under university auspices rather than by examinations.

POSTGRADUATE MEDICAL EDUCATION

There has been a growing recognition of the great importance of continuing the education of physicians in practice, whether general practitioners or specialists, and of providing facilities for the training of specialists. State and local medical societies, universities, special groups, and over 40 postgraduate medical centers are organized to carry on a variety of medical extension education which aims to familiarize the doctors in practice with the possibilities, value, and limitations of the newer methods of diagnosis, treatment, and prevention. There is general recognition that probably the most important factor in the medical care of the community is keeping

[4] Arkansas, Connecticut, Minnesota, Nebraska, Washington, and Wisconsin.

physicians abreast of current knowledge. The social, economic, and educational features of a program designed to infuse the entire profession with new knowledge and the application of that knowledge to medical practice challenge the most thoughtful consideration of medical educators and leaders.

The training of specialists is another phase of the larger problem of training personnel to meet the medical needs of the country. The time will come when the medical profession and the public authorities will devise ways and means of guaranteeing to the public that those who claim to be specialists are, in fact, competent by training and experience to perform the expert services they claim to be able to render. There are now a number of medical centers which provide excellent and sufficent training for the special fields of practice. The public as well as the profession itself is coming to realize the importance of differentiating medical services to meet the needs of individuals by recognition of the functions to be performed by general practitioners, specialists, consultants, laboratories, and hospitals.

CHANGES IN MEDICAL PRACTICE

Methods of medical practice are undergoing significant changes which are bound to have an influence on medical education. The enormous growth of knowledge regarding the diagnosis, treatment, and prevention of disease and the many technical procedures based on that knowledge have been largely responsible for the growth of specialism, laboratories, and hospitals. Economic and social conditions of living, employment, and recreation are having an increasingly important influence on methods of practice because of the changes in the demands for medical care to which they give rise. Industrial medicine, group and hospital insurance, the great increase of salaried medical services, the concentration of recent medical graduates in the cities, the great numbers of nonmedical personnel in the field of medical care (now about ten times the number of physicians) need only be mentioned to suggest a number of ways in which medical education will be influenced by changes in practice. These indicate some of the larger responsibilities of medical education.

Note.—In regard to medicine as a career see "Medical Education," by Walter J. Greenleaf, Circular No. 19, September, 1930, Office of Education. (Multigraphed.)

CHAPTER XVI

ENGINEERING EDUCATION

By F. L. Bishop

Secretary, Society for the Promotion of Engineering Education; Professor of Physics, University of Pittsburgh, Pittsburgh, Pa.

Contents.—Introduction—Curriculum—Admissions—Junior colleges—Graduate work—Evening schools—Summer schools for teachers of engineering

Engineering education, in its various phases, has been the object of study of the Society for the Promotion of Engineering Education since the organization of the society in 1893. In 1907 an investigation of engineering education was inaugurated by the president of the society, but since the task was larger than the society could accomplish at that time, the study was made by Dr. C. R. Mann under the auspices of the Carnegie Foundation for the Advancement of Teaching, and a report was published in 1918. This report indicated that a further investigation was desirable, and in 1923 the Society for the Promotion of Engineering Education again began a study of engineering education, which was undertaken with funds appropriated by the Carnegie Corporation, the National engineering societies, and other organizations, and was finished in 1929. As soon as a study of a particular phase was completed, it was published in pamphlet form. Eventually all these papers were brought together and issued as Volume I, Final Report on Investigation of Engineering Education, 1923–1929. Thus many of the foregoing investigations have been under close scrutiny for several years. The completion of the study produced a sense of stability in that it showed that the curriculum and the general methods of presentation were along the right lines. It also pointed out the weakness of the system of engineering education, and thus gave a definite problem for the engineering schools to attack in order that engineering education might be improved. In the report of the chairman of the board of investigation and coordination of the Society for the Promotion of Engineering Education is the following significant statement:[1]

[1] Final Report on Investigation of Engineering Education, 1923–1929, Vol. I.

Engineering education must provide the way for the solution of problems in the field of social utility as well as the application of scientific principles to specific technical problems. The strictly technical professional activity is comprised in engineering, but it is not the definition of it. What engineering education must have is a guiding philosophy based on a clearer visualization of the place of engineering in modern life.

CURRICULUM

It appears at the present time that the engineering schools will for the most part remain undergraduate schools extending four years beyond the preparatory school, although there are a few notable exceptions to this. Graduate work extending beyond the four years is now an essential of engineering education, and it will be discussed later.

The limiting of the engineering course to four years of undergraduate work arises largely from a greater appreciation of the fact that the engineering curriculum represents a type of education as well as professional training. It is a course in applied science in contrast to a course in the humanities. The investigation showed that a graduate from an engineering school is well fitted to enter many fields of endeavor in this mechanical age.

The curriculum of the undergraduate course in engineering continues to be based upon the fundamental sciences of mathematics, physics, and chemistry, with their applications occupying the student's attention during the latter years. A broad band of the humanities extends throughout the four years.

The proposal that the undergraduate curriculum remain four academic years assumes that no attempt will be made to train men to be either specialists or all-round engineers in that period and that further training is required to fit men to engage in the more advanced engineering specialties.

"The curriculum of four years should not, in general, require in excess of 144 credit units, measured in semester hours, or their equivalent, exclusive of required physical and military training and required summer courses. The range of from 16 to 18 credit-hours per week is suggested as a norm, assuming each credit-hour to represent a work load of three clock hours.

"Six distinct subjects of instruction to be carried simultaneously are suggested as a maximum limit consistent with efficiency of effort. (Closely correlated work in class and laboratory or drawing room may properly be considered a single subject.)

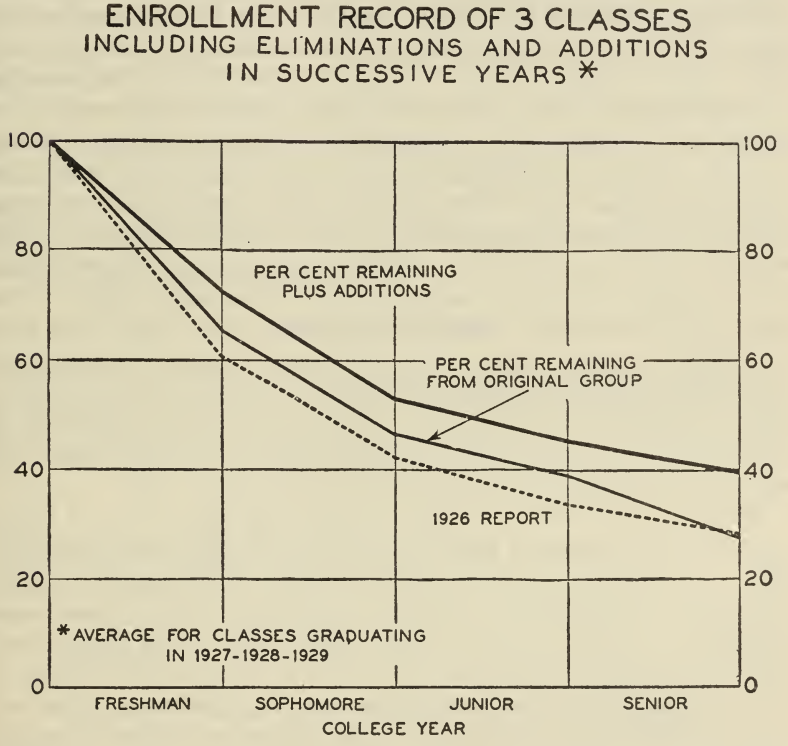
"General economics is entitled to a place in all engineering curricula as a required subject. History, political science, and sociology are highly desirable subjects and deserve to be included, either as required or elective subjects, wherever possible. These subjects

should be taught by competent exponents and primarily for cultural rather than technical ends. These cultural ends, however, should not be left wholly vague and undefined, but should have in view the importance to the engineer of grasping the social significance of his work and of relating it effectively to other persons, social groups, and social institutions." [2]

A number of engineering schools have provided honor courses for the exceptional students.

ADMISSIONS

One of the most difficult problems facing engineering education is the heavy student mortality. The report of 1927 [2] showed that out of every 100 students entering as freshmen, only 28.1 graduated. The present condition is exhibited in the following graph:



This shows that a larger percentage of freshmen become sophomores, more of these become juniors, and more juniors become seniors, but the striking fact remains that the number graduating is slightly less, i. e., 27.5 per cent.

[2] Ibid.

An analysis of 22 institutions indicates the principal reasons for mortality in order of importance to be as follows: Scholarship, health, finances, personal, lack of interest, preparation, and transfers to other colleges and departments.

Admissions (data from 83 institutions)

Number of freshmen admitted in 1929	17,840
Number of freshmen admitted with conditions	3,041
Students admitted to advanced standing	2,618
From other engineering schools	601
From other collegiate schools	1,714
Transfers from other courses	303

JUNIOR COLLEGES

One of the most critical problems confronting engineering education is the correlation of the junior college with the engineering college. A number of universities have made the experiment of creating a junior college through which all students pass before entering the professional school. This experiment, which would seem to be logical and desirable, has not proved satisfactory for engineering students. It has been discontinued by most of the institutions after a few years' trial. Its failure is due perhaps as much to the type of students that enter engineering as to any other single fact. The students have very definitely selected engineering as a profession; and although the subject matter given in a junior college of this type may be the same, a feeling exists among the students that they are taking two years more of a high-school course. To enter an engineering school the student must have elected to take mathematics from the eighth or ninth grade. This really means a selection of engineering at an early age; consequently the student enters the engineering college with a very definite professional urge.

While it is true that a student selecting engineering at the beginning of his preparatory school course may at any time change to other courses leading to other professions, it unfortunately remains practically impossible for a student who has not selected this course to change to engineering during the latter years in the high school. This is an unfortunate situation and one to which much thought is given. This early selection of engineering as a profession has a far-reaching effect upon the student when he enters college. Specifically, it leads him to feel that his entrance to the engineering school is the beginning of his apprenticeship in the engineering profession and tends to make him negligent of those subjects which he can not immediately connect with the profession.

The problem of correlating the junior colleges of the United States with the engineering colleges remains an unsolved problem for the

most part, although one or two experiments are being undertaken which promise much in the way of a solution.

GRADUATE WORK

No more important development has taken place in engineering education in recent years than the increase in graduate work. The greater part of this has come about through cooperation between industry and the engineering colleges located in large urban centers. The graduate who has been in industry for one or more years finds a need for advanced study in a certain field. The urban institution offers these courses either in the evening or at a time convenient to the student and his employer. The result has been a great increase in the number of student candidates for advanced degrees.

There has also been a marked increase in the number of resident students pursuing graduate work. Many of these graduates are on fellowships in connection with engineering research in various institutions.

The enrollment of graduate students at the close of 1929 showed that 71 institutions out of 110 reporting had a total enrollment of 2,835 such students, of which 1,608 were candidates for an advanced degree in engineering. At the same date there were 22 schools offering evening courses with 1,760 students receiving credit towards a graduate degree.

EVENING SCHOOLS

Not only has there been a marked increase in the number of students entering evening schools for advanced work in engineering but the increase in all types has been notable within the past few years. The following table shows the attendance as of December 31, 1929:

Number receiving credit for bachelor degree	4,463
Number receiving credit for graduate degrees	1,760
Number of students not candidates for degrees	7,933
Unclassified	1,850
Total enrollment in evening courses	16,006

SUMMER SCHOOLS FOR TEACHERS OF ENGINEERING

One of the most successful educational experiments in the field of engineering education has been the establishment by the Society for the Promotion of Engineering Education of summer schools for teachers in engineering colleges. These were a direct outgrowth of the investigation of engineering education conducted by that

organization. It was recognized as a result of this study that the surest way of improving the engineering graduate was to improve the teaching in the colleges.

The Carnegie Corporation provided funds for a trial of these schools in the summer of 1927. Two schools were established that summer in the fundamental subject of mechanics. In the beginning it was proposed to limit the attendance to a relatively small number so that the discussions would be intimate and all would know one another by the time the session was over. The limit was set at 30, but it was impossible to adhere to this number, and before the first session convened the limit had to be raised to 40 in each school. At the present time no limit is placed on the attendance. At the drawing session held in the summer of 1930 there were 102 present. There have been seven sessions of the summer school devoted to six divisions of the curriculum. The total attendance has been 459 regular members of the school and nearly 200 members of the staff, a total of 650 teachers from engineering colleges who have devoted a portion of their summer vacations to improvement of their teaching.

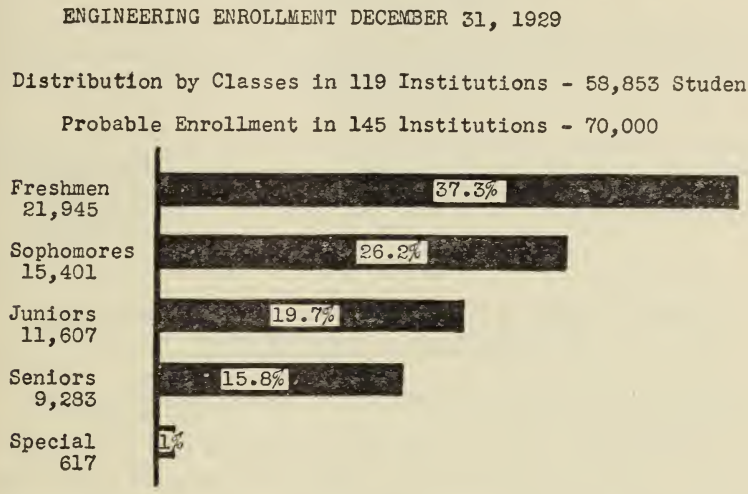
Many beneficial effects have been noted as a result of these schools, such as discussions in many faculties of the problems of teaching, the creation of sections in the Society for the Promotion of Engineering Education devoted to these subjects, etc. These sections meet at least once a year and discuss their mutual teaching problems. Many of them also make monthly contributions to the Journal of Engineering Education. These represent only a few of the beneficial effects resulting from the summer schools.

Percentage distribution of class enrollments by engineering courses, December 31, 1929

Courses	Class			
	Senior	Junior	Sophomore	Freshman
Electrical engineering	29.8	29.0	26.2	27.9
Mechanical engineering	19.1	20.5	22.6	22.7
Civil engineering	25.1	23.9	20.6	19.5
Chemical engineering and chemistry	11.0	11.2	13.2	13.1
Mining engineering	1.3	1.4	1.9	1.7
Industrial, administrative, and commercial engineering	4.0	3.6	2.9	1.4
Architectural engineering	3.4	4.0	4.1	4.4
Aeronautical engineering	2.0	1.7	3.3	2.9
Metallurgy	.8	1.8	.8	.7
Other	3.5	2.9	4.4	5.7
Total	100.0	100.0	100.0	100.0
Number of students	6,267	7,852	10,007	10,418
Number of institutions	75	74	65	43

Percentage distribution of enrollment in six major courses

Courses	First degrees conferred				Enrollments, Dec. 31, 1929			
	1922	1924	1926	1928	Senior	Junior	Sopho-more	Fresh-man
Electrical engineering	23.5	28.2	31.2	35.5	33.3	32.2	29.6	31.3
Mechanical engineering	26.4	28.3	25.2	22.5	21.2	22.6	25.4	25.4
Civil engineering	25.4	24.0	26.0	26.0	28.0	26.7	23.3	21.9
Chemical engineering and chemistry	15.9	11.5	10.3	9.7	12.3	12.5	15.0	14.7
Mining engineering	7.3	6.9	5.7	3.9	1.4	1.5	2.1	1.8
Architectural engineering	1.5	1.1	1.6	2.4	3.8	4.5	4.6	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



Probable number of future graduations (calculations based on growth in 58 colleges of engineering)

Year of graduation	First degrees, per cent of 1928		Year of graduation	First degrees, per cent of 1928	
	Minimum	Probable		Minimum	Probable
1927	96.4	96.4	1931	114.5	118.8
1928	100.0	100.0	1932	114.8	123.1
1929	107.4	107.4	1933	115.6	124.4
1930	106.3	109.4			

Number of degrees in 1928, 8,278.

CHAPTER XVII

EDUCATION OF CERTAIN RACIAL GROUPS IN THE UNITED STATES AND ITS TERRITORIES

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With the collaboration of

JOHN H. MCBRIDE, JR., W. CARSON RYAN, JR., WILLIAM HAMILTON, AND AMBROSE CALIVER

CONTENTS.—I. Scope and nature of the educational problems considered. II. Education in the principal outlying parts: (1) Hawaii; (2) Porto Rico; (3) Philippine Islands, 1920–1930. III. Work of the Office of Education for the natives of Alaska, by William Hamilton. IV. Indian education in the 48 States, by W. Carson Ryan, Jr. V. Education of Negroes in the United States, by Ambrose Caliver.

I. SCOPE AND NATURE OF THE EDUCATIONAL PROBLEMS CONSIDERED

SCOPE OF THE AMERICAN UNDERTAKING IN EDUCATION

The extent and significance of the American undertaking to provide for or promote free public and universal education among the minority groups and native populations now living under our flag, large numbers of whom are citizens or potential citizens of our Republic, can be appreciated only in the light of the entire situation involved. The amount and distribution of territory, the number and variety of the groups, social conditions of the people, their traditions and ideals, as well as the school population and other more definitely educational problems, are all factors in the ensemble. Wide distribution of territory and people in itself usually connotes climatic, racial, and social differences, and in the extensive dispersion of our several outlying parts alone one finds at least a forecast of the multitude and variety of the problems involved in extending education among the people. Beside continental United States, with its large Indian and Negro populations, outlying parts, where native groups prevail or constitute a considerable percentage of the population, extend from Point Barrow, the extreme northern point in Alaska bordering the Arctic Ocean, to Rose Islet in American Samoa, farthest south, in the Pacific Ocean; from the Philippine Islands,



FIGURE 1.—Map of the United States showing accessions of territory since 1853

more than 10,000 miles west of the Capitol at Washington, to Porto Rico, approximately 1,500 miles east and south. In geographical language, the territory involved reaches from 71° 45′ N. to 14° 32′ S. latitude, and from 67° 53′ to 118° longitude east of Greenwich. Questions of accessibility alone and consequent ease with which ideas are exchanged and mutual understandings promoted are of momentous difficulty. One would have to sail completely around the world if one continued in the direction in which one started, with long detours to the north and to the south of a straight course, in order to cover the territory.

The accompanying map shows territorially the relative size and extent of the United States and its outlying parts. The cartographer of the National Geographic Society, who was good enough to make the calculation, found that an air line measuring the shortest distance from Point Barrow to Rose Islet would be 5,980 miles in length, and a similar shortest-distance line from the southernmost point of the Virgin Islands to the Philippines, which would be via the South Pole, would measure 10,800 miles.

In terms of area, our outlying parts compose more than 711,609 square miles. Alaska alone has an area of 586,400 square miles. The Philippines, our next largest part, are 114,400 square miles in area and are said to contain more than 7,000 islands. Further indication of the relative size of the parts of the United States is presented graphically in Figure 2. Continental United States, on the scale used, would be represented by a square 9½ inches on each side. It covers an area four and one-fourth times the combined area of all the outlying parts.[1]

Imposing as are the area and distances involved in a territorial survey of our far-flung parts, it is, after all, with the people, especially with the children—their education and welfare—that we are most concerned. Certain general information regarding the enrollment and attendance in schools, the different types of schools, and the average per capita costs of maintaining them are presented in Table 1. Except in the Philippines and Porto Rico, where schools are as yet quite inadequate to house the school population, and consequently enrollment is quite insufficient as an index, the figures give a general idea of the school task under present conditions. Data of the type given in Table 1 are not available for Panama Canal Zone and American Samoa. The number of schools maintained and the total population for each of our eight outlying parts are as follows:

[1] Figures 1 and 2 and Table 2 are from Geological Survey Bulletin 817, U. S. Department of the Interior.

Statistics for the year 1930

Name	Number of schools	Enrollment	Population	Name	Number of schools	Enrollment	Population
Guam	21	3,683	18,509	Philippine Islands	[1] 7,616	1,121,233	12,000,000
American Samoa	20	1,957	10,005	Virgin Islands	[2] 24	3,061	22,012
Hawaii	150	71,657	368,336	Porto Rico	2,238	221,248	1,543,913
Panama Canal Zone.	15	6,616	39,469	Alaska	127	7,335	59,793

[1] 1929. [2] 1928.

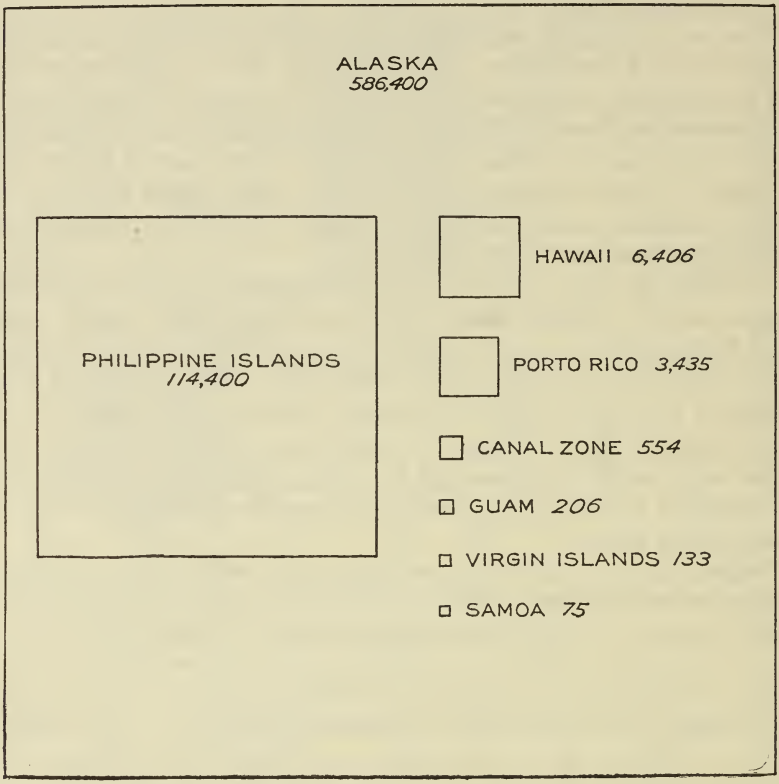


FIGURE 2.—Relative size of the outlying parts of the United States, plotted on a scale of 1 to 12,000,000. Figures indicate square miles [1]

Information concerning the number of schools and total population was prepared by the Bureau of Foreign and Domestic Commerce at the request of the State Department for use at the Colonial and Overseas Exposition. The total enrollment was reported to the Office of Education, United States Department of the Interior.

[1] Figures 1 and 2 and Table 2 are from Geological Survey Bulletin 817, U. S. Department of the Interior.

TABLE 1.—*Data for 1929 and 1930 from annual reports to the United States Office of Education*

Name	Enrollment			Attendance		Types of schools								Per capita cost
	Boys	Girls	Total	Aggregate	Average daily	Kindergarten	Elementary	Separately organized junior high	Junior-senior under one organization	Regular high schools of 4 years or less	Vocational schools of secondary grade	For deaf, blind, feeble-minded, delinquent, etc.	Total	
Alaska	-------	-------	7,335	995,527	5,928	--	------	----	----	----	----	------	127	$115.28
Guam	2,020	1,663	3,683	717,189	3,532	--	25	----	----	----	----	------	25	14.82
Hawaii	37,295	34,362	71,657	11,409,231	67,510	--	165	16	----	9	1	1	192	68.32
Philippines	651,954	469,279	1,121,233	193,709,568	1,008,904	--	7,200	----	----	126		3	7,329	10.50
Porto Rico	119,544	101,704	221,248	36,975,725	193,396	--	2,229	----	----	21	----	------	2,250	23.19
Virgin Islands	1,568	1,493	3,061	581,590	2,908	--	20	2	1	----	----	1	24	35.58

In continental United States assimilating into our national life the many different tribes of Indians with their respective differences in customs, languages, status as to progress in civilization, and the like has long been recognized as an obligation deserving of our best efforts. Similar responsibilities for the natives of Alaska came with our purchase of that Territory from Russia, though for many years after the purchase we apparently were neglectful of our responsibilities and opportunities both from the point of view of their civic and of their educational welfare. At the close of the Spanish-American War the Philippine Islands, Porto Rico with some adjacent territory—far-flung islands of the Pacific and Atlantic Oceans, each with momentous educational problems concerned with the native populations—became our responsibility, and in each of them, in spirit if not literally, the "schoolhouse followed the flag." Since then we have annexed Samoa, Guam, and the Virgin Islands. Hawaii, like Alaska, has full territorial status. (See Table 2.)

TABLE 2.—*Administrative control of the principal outlying parts of the United States, January, 1930*

Name	Under control of—		Executive officer and address	Year in which acquired
	Department	Bureau		
Alaska	Interior	----------	Governor, Juneau, Alaska	1867
Canal Zone	Independent.	----------	Governor, Balboa Heights, Canal Zone.	1963
Guam	Navy	Island Governments	Governor, Agana, Guam	1898
Hawaii	Interior	----------	Governor, Honolulu, Hawaii	1898
Samoa (American)	Navy	Island Governments	Governor, Pago Pago, Tutuila	1900
Swains Island	---do	----------	---do	
Philippine Islands	War	Insular Affairs	Governor, Manila, P. I.	1898
Porto Rico	---do	---do	Governor, San Juan, P. R.	1898
Virgin Islands of the United States.	Navy[1]	----------	Governor, St. Thomas, Virgin Islands.	1917

[1] Transferred to Interior Department, March 18, 1931.

Besides the direct and indirect responsibilities for the education of native populations living under our flag, the Federal Government has from time to time found it necessary or expedient to assume certain service obligations for the welfare of independent nations, particularly those in contact with or adjacent to the Panama Canal. In these countries large educational problems inherent in or allied to economic and literacy status condition the development of mutual international understandings. The American occupation of Haiti is an example in point. As is well known, a committee was appointed recently to examine into education in Haiti, and to report its findings to the Department of State. This is evidence of a new attitude toward the significance of the amount and quality of education of indigenous peoples. It may have a widespread influence on relationships with and policies toward other Caribbean neighbors.

There are increasing manifestations of a deeper recognition of the importance of redefining objectives and reorganizing practices in educating native populations in our own and other countries. Recently a comprehensive survey of the whole situation involved in assimilating our Indian population was made under the direction of the Institute of Government Research. The stimulation of this survey and its recommendations have eventuated in rather fundamental changes in the program of the Federal Government as worked out through the Indian Office, and announced by the Secretary of the Interior in relation to the civic, economic, and especially to the educational welfare of the Indians.

In Alaska where both Indians and Eskimos make up the native population, amounting to approximately a third of the total population of the Territory, the present policy is looking toward eventual transfer of the responsibility for schools for natives to the Territorial government, the agency responsible for education in general. The first step was taken when the administration of the education and medical service to the natives of Alaska was transferred from the Office of Education to the Indian Service, unifying the work among the indigenous groups in that Territory and in the States.[2]

Evidences of interest and progress in the world at large, as well as in our own land, are not wanting. Extensive preparations are now under way for an educational exhibit in connection with the International Colonial and Overseas Exposition to be held in Paris from May to October, 1931. A commission is at work preparing the American exhibit, of which an educational section is to be an important part. There will be appropriate showings of the nature of educational work in progress in Porto Rico, Hawaii, Guam, the Virgin Islands, Alaska, and the Philippine Islands.

[2] This transfer was effected March 16, 1931.

Mexico, as all the world knows, has within the past few years launched an extensive educational program among her 23 different Indian races, an exceedingly high percentage of which are illiterate and up to the present time have been unintegrated into Mexican national life. This experiment, designed to make literate a vast population in the shortest possible time, is unique in many of its procedures. It has apparently thrown overboard traditional practices in education. Instead of modeling the new schools on the old tradition-perpetuating practices followed in the educational program in vogue, the Mexican scheme launches almost overnight an entirely new program in the establishment of a system of schools of action—escuelas de accion—representing an effort at an immediate country-wide application of the Dewey philosophy in education. This is probably the most extensive effort at the materialization of a program in what is generally termed "progressive" education which we have yet seen. The plan has found such favor abroad and such immediate success in Mexico that other Latin-American countries, notably Peru, recently formulated or have plans to launch programs somewhat similar in nature.

COMMON PROBLEMS IN VARIED SITUATIONS

In spite of wide differences—racial, economic, social, traditional, etc.—among the minority and indigenous peoples for whom an American education program has been established, the number of problems common to all situations is striking. Among the most significant is that of acquiring a common language. Little progress can be made in promoting common understandings of any kind until this is accomplished. Among the Indians in continental United States, as among the Indians and Eskimos in Alaska, many languages and dialects still prevail. In spite of a long period of exposure to American civilization and schools taught in English, a high percentage of the Indian population has not yet acquired facility in the common tongue. Teaching English is still one of the serious difficulties in the schools.

In the Territory of Hawaii, as in our principal insular parts, the Philippines and Porto Rico, the success of the educational program is conditioned by its success in teaching and promoting the use of the English language. In Hawaii, English is universally accepted as the common and basic language, yet facility in its use still offers difficulties. In the Porto Rican schools both Spanish and English are basic, and an effort at rearing a bilingual generation is under way. In the Philippines, while progress toward universal education is still retarded by the lack of facility in the use of an accepted common language, the situation is reported as improving.

In general, the indigenous people for whose education we are responsible are predominantly rural—at least nonurban. The difficulties encountered in the education of our own rural population, still far from solved, are intensified among our indigenous and minority groups. Relative isolation, inadequate school financing, and difficulty of securing and preparing a professional staff offer obstacles to progress.

Wherever native races come in contact with and must eventually participate in an industrial and economic life quite different from their own traditional one, a school program adapted to their ability levels, organized to promote adjustment to changing social conditions, yet in harmony with their environment and presented in terms and through materials they understand, is a primary essential. Meeting the complex situations of modern civilized living offers difficulties even for those who have grown up with it.

In coping with problems arising from New World influences there is the ever-present danger of imposing on an unassimilated people our own educational system. It is apparent that mistakes have been made. Reports from education officials of the several groups considered in this chapter indicate a general recognition of the need for readjustment and adaptation. Vocational education programs are receiving special attention. The formulation of programs adapted to overcome the exceedingly high percentage of illiteracy, judged by American standards, of health programs designed to help both children and adults to acquire a fundamental reorganization of traditional modes of living essential to community life under modern conditions and the closer contacts of modern civilization—offer other problems momentous in character and common to the several groups. The possibility of achieving these ends is based on improved economic conditions. Promoting a common language, literacy, economic welfare, and health are closely intertwined.

Common also to each educational program is the desideratum of preserving the best in native cultures, religions, arts, and crafts, as well as the special gifts and talents with which as individuals and groups the native and minority peoples are so richly endowed. Such preservation involves much more than intelligent and sympathetic appreciation and understanding. It involves long-term educational programs including basic training in the arts and crafts, often a redirection of their processes and outcomes, and in many cases the creation of a market for the output which will insure satisfactory economic returns.

As education proceeds with all the minority peoples the aim is to transfer responsibility for administration, supervision, and instruction in the entire system as rapidly as possible to the groups them-

selves. This is in accord with the very earliest policy of the United States, when William Howard Taft, then Governor General, enunciated the doctrine of the Philippines for the Filipinos. In Porto Rico and in the Philippine Islands it has practically been achieved. Native teachers predominate, not only among elementary and secondary schools, but in the higher administrative and supervisory positions as well. In the Indian Service and to a more limited extent in Alaska, the training of natives to fill teaching positions, as well as nursing, social, and professional positions, is progressing, and the transfer of responsibility for these duties is going on wherever possible or consistent with efficiency.

By way of recapitulation, then, a sequence of detailed school problems grows out of the common basic objective of integrating native and minority peoples into a new social and economic order. Reports of education officials working in the different situations with which we are concerned indicate that there are many pertinent and as yet unsolved problems common to or similar in all of them. They are inherent in the building up of complete educational systems adapted to achieve the same general purpose though in widely differing situations.

II. EDUCATION IN THE PRINCIPAL OUTLYING PARTS

(1) HAWAII

Hawaii exemplifies, both in progress made and problems now uppermost in the educational program, many of the situations and problems to which reference has been made. In the promotion of universal literacy, in integration of the native population into full American citizenship and social participation, in the promulgation of American ideals as to the need of universal elementary and secondary education, in a growing acceptance of the interdependence of economic welfare and education, Hawaii appears to have achieved remarkable progress.

Recent reports concerning educational conditions in Hawaii indicate the existence of certain significant problems which are natural outcomes of a changing social order to which neither the people nor the schools are as yet fully adjusted. There is considerable retardation, no doubt due in part to the economic situation as well as to language difficulties. The relatively extensive health program with which Hawaii aims to reach both children and adults is not yet adequate, and its further extension is being sought by education officials. A widespread interest is apparent in curricular revision, especially in the secondary schools, through which it is hoped to devise a new program in vocational education which will help solve some of the economic problems of the Territory and result in increasing enrollment in vocational courses while reducing that in strictly academic ones. There is now at work a gubernatorial committee investigating conditions of education and industry. On the basis of the analysis made it is expected that a revised program, particularly in vocational education, may be recommended by the committee and financed by the coming session of the Territorial legislature.

Hawaii has a compulsory education law applicable to all children 6 to 14 years of age, regardless of racial descent, or of occupation and residence of parents. According to the biennial report for the period ending 1928, school housing facilities are available for every child of school age. The increase in enrollment in grades 1 to 6 during the decade ending in 1928 was 98 per cent. All teachers are and must be by law American citizens. Practically all children

enrolled in the schools are now citizens of the United States. The extent to which native Hawaiians have accepted the educational program is indicated by the fact that 15 per cent of the school enrollment and 20 per cent of the teachers are Hawaiian and part-Hawaiian. A few private schools are exclusively for natives of pure or part-Hawaiian blood. However, the general practice in both private and public schools is to make no distinction. Apparently in Hawaii the education of the natives in itself no longer constitutes a special problem. According to a statement of the superintendent of public instruction for the Territory of Hawaii in December, 1930, "We have no separate schools nor educational plans for the indigenous peoples of this Territory in differentiation from any other people. All of our schools are regular public schools for all children of the Territory and to the best of my knowledge they compare favorably with public schools throughout the rest of the United States."

The report of the Territorial commissioner of education for 1928 resembles in all substantial respects similar reports from progressive States on the mainland. The school system is highly centralized. It embodies in its administrative organization many of the principles advocated by the best authorities on school administration for State organization. A uniform salary schedule is provided for rural and urban teachers, an achievement, indeed, which none of our States has yet reached. There is equitable distribution of school funds, and similar educational opportunities are furnished throughout the Territory.

A research division in the department of education is functioning actively. Under its guidance an activity program for the primary grades has been developed "from actual experiences of teachers throughout the system." Some idea of the course of study resulting may be gained from the following topics discussed in the introduction: The meaning of an activity program; points of superiority of such a program; characteristics of a good activity; dependence of an activity upon experience; the place of subject matter in an activity program. It is believed that this course of study for primary grades is a distinct contribution to the field of curriculum making which will result in vitalizing teaching throughout the Territory and should facilitate the initiation of activity programs of the type to which progressive education is committed.

(2) PORTO RICO

An examination of recent reports of progress in education in Porto Rico impresses one with the apparent efforts to follow out recommendations of the survey of the Porto Rican educational system

made by the International Institute of Teachers College in 1926. The most pressing problems of education result from the density of population and the inadequacy of funds with which to maintain schools. Eighty per cent of the population is rural. The economic level is low. There are neither school buildings nor teachers enough to supply adequate education facilities, elementary and secondary, to more than half of the total school population.

Yet with all the difficulties the survey of 1926 calls attention to an achievement in Porto Rico unparalleled in the history of education in continental United States, namely, the building of the framework of a complete educational system in the short period of 25 years. The school system, while modeled after that of the United States and distinctively American, does not surrender the native language and culture of the people of Porto Rico; rather, it aims to preserve both. Financing the public-school system, even prior to the recent tornado disaster, has been a heavy burden for a strictly rural territory. The per capita wealth of the island is less than half that of the least prosperous of our States. The people have therefore spent on the building up of the educational system an unprecedented proportion of their annual revenues. While the percentage of illiteracy was reduced more than 50 per cent between 1900 and 1925, approximately half the children of school age were not at that time enrolled in school, chiefly because of the lack of available schoolhouses and teachers. Practically all the children in school in rural districts attended half-day sessions only.

Since 1926 considerable progress has been made in extending educational facilities to larger numbers of children. Accommodations, however, are still wholly insufficient. There is the added problem of large numbers of undernourished children at school. For these children lunches and breakfasts are now provided either without cost to them or at very nominal cost. According to the last available report of the department of education for 1927–28 a lunch room was provided for every school unit in Porto Rico through the combined effort and resources of the government and the people and through various types of contributions. Securing money for the extension of this service was one of the objectives of the recent visit of Governor Roosevelt to the United States.

So important are matters of sanitation and health to the general welfare of the island that a commission was appointed during the present biennium by the President of the United States to study the problem and make recommendations for future procedure. As an evidence of its understanding of the school's responsibility for the promulgation of a health program adapted to the general welfare, the department of education is now formulating plans with the cooperation of the American Child Health Association for the re-

vision of its school health program to conform with plans recommended by the committee.

Porto Ricans are feeling the need of a larger program in vocational education designed to contribute to the economic prosperity and to the development of the natural resources of the island. The Federal Board for Vocational Education recently completed a survey of the situation and made extensive recommendations concerning further progress in this direction. At the present time industrial work, agriculture, and home economics all hold important places in the school program, elementary as well as secondary. Courses in Porto Rican foods, in the making of Porto Rican lace, in needle work and embroidery, in basketry, and in growing vegetables, are among those offered in the effort to advance and adapt the vocational education program. With the health and agriculture courses particularly, the schools aim to reach adults through parent associations, meetings, and exhibits.

Manual training and mechanical drawing courses have been modified in the last two years and placed on a project basis, including as many as possible of the trades, particularly those useful on the island. Industrial courses are offered in the graded and rural schools, the ultimate aim of which is "to develop fully the natural resources of the country." In the "second unit" of the rural schools the courses are based wholly on a vocational program, with emphasis on those trades economically productive in Porto Rico. As an illustration of the work in agriculture, Porto Rico's chief industry, the last annual report of the commissioner states that there were during the year 1,844 classrooms in which agriculture was taught; 17,952 home gardens were cultivated through the efforts of the schools; 279 agricultural exhibits and 1,389 public meetings of parents' associations were held; teachers and supervisors made 124,071 visits to the homes; and 7,063 rural conferences were held.

At the request of the commissioner of education the legislature made a budgetary appropriation of $25,000 for the fiscal year 1928–29 to finance a reorganization of the rural-school curriculum. Central schools, vocational in character, known as "second unit" schools, were established in six different sections of the island. The aims of these schools, as stated in the report of the department of education, are: (1) To raise standards of living in rural communities, (2) to improve the productive capacity of the island, (3) to carry out a program of social and health instruction based on the needs of the people in the rural centers, (4) to improve the life and home conditions of the people. Additional schools in other sections will be established as rapidly as conditions warrant. Thirteen such schools are reported at the close of the school year 1930.

The department of education is vigorously attacking the matter of in-service training for teachers. Two unusual phases of this work are in progress. The first is an effort to assist through in-service training the regular teachers, especially rural teachers, with the special subjects now being stressed by the department, particularly agriculture and the manual arts. In this work the department of education, College of Agriculture and Manual Arts, and the insular department of agriculture cooperate. The second phase is the practice of the department of education to offer "outlines of work to teachers from the United States who wish to learn Spanish." Three courses—elementary, intermediate, and advanced—are offered, for the completion of which credits similar to those offered in colleges and universities in the United States are granted.

The need of library service, especially of school libraries, is felt keenly in the education of native populations. In Hawaii and Porto Rico definite efforts are in progress to overcome the present deficiency. In Porto Rico the department of education has adopted a plan whereby it is hoped that "libraries in the secondary schools at least will begin a steady and normal growth." Each student is requested to contribute $1 per year to the library fund, an amount somewhat less than would be required if he bought the 10 books required as supplementary reading. With the fund so acquired the schools can purchase a sufficient number of copies of the required textbooks that all students may have adequate access to them and in addition purchase some general and special reference books. Over a period of years libraries will be built up. At the end of the fiscal year 1927–28 there were 732 school libraries in the Porto Rican system. A campaign has recently been launched to provide small libraries for rural homes, while the professional library of the department of education was enriched during 1927–28 by the addition of several hundred volumes.

In Porto Rico, as elsewhere among indigenous peoples, the problem of retardation is a serious one. For many years the custom prevailed of receiving in school older children in preference to younger ones, since accommodations for all are insufficient. While recent efforts have been in the direction of reversing this practice, it was inevitable that a high percentage of retardation should result which will require years to overcome even under improved conditions. Double enrollment, that is, two classes of 30 to 35 pupils per teacher, one taught in the forenoon and one in the afternoon, is another factor in retardation. This plan has been followed since the initiation of the present school system. It is now confined largely to the first grade, and, according to the annual report of the department of education,

1929, is "the only method that will solve the present problem until more funds are provided."

For five years the department of education has conducted a bureau of extension and examination which provides instruction to many students who have not the privilege of attending school. The student body is composed of teachers and others who work during the day or can not afford to attend school and students from the regular high schools who take one or two subjects in extension to reduce the time they must otherwise spend in school. It is the purpose of the bureau to establish a complete system of instruction by correspondence as soon as facilities are available. The University of Porto Rico offers summer courses in science and mathematics for persons enrolled with the bureau. In 1927–28, 74 high-school diplomas and 4 elementary school diplomas were issued to those who had completed the required courses.

(3) PHILIPPINE ISLANDS, 1920–1930

By John H. McBride, Jr.
Superintendent on Special Detail, Academic Division

Administration of education in the Philippine Islands is centered in the bureau of education, created in 1901 under the executive control and general supervision of the department of public instruction, at the head of which is the Vice Governor of the Philippine Islands.

The present school system consists of an elementary school of seven years and a secondary school of four years in which all instruction is in English. Elementary education in all parts of the islands is free, except for a matriculation fee of ₱2 ($1) collected from pupils in grades 5 to 7, inclusive. Purely academic secondary schools are partly supported by tuition fees paid by the pupils, but vocational schools offering the normal, agricultural, trade, commercial, nautical, and home-economics curricula are maintained wholly by the government. At the present time all the teachers in the elementary schools and the majority of teachers in the secondary schools are Filipinos. When it is considered that the bureau of education, when organized, faced the problem of initiating a modern school system where there had been only a handful of scattered schools which operated without adequate supervision, support, or personnel, and of training a body of teachers not only in subject matter and in modern methods of teaching but also in the language which they were to employ in teaching, the magnitude of the task may be appreciated.

The early years from 1901 to 1920 were years of development and expansion during which the system passed through many progressive stages. The first period of expansion lasted from the beginning of

the bureau to about 1911, when the enrollment exceeded 600,000. From then there was no considerable increase until after the passage of a law by the Philippine Legislature in 1918 setting aside 30,000,000 pesos ($15,000,000) to be spent over a 5-year period beginning 1919 for the extension of elementary education. During the first three years of this period the funds under this appropriation were released as provided for by the law. Due to financial difficulties caused by post-war readjustment the full amounts of the last two years' grants were not available. The actual amount received for extension of elementary education, therefore, was ₱25,055,056. By 1920 the enrollment had increased to 791,626. During the life of this act it further increased to 1,130,316 in 1925. Until 1929, when another act of the legislature appropriated ₱700,000 ($350,000) for extension of barrio (rural) education, the increase in enrollment was gradual. In that year the enrollment was 1,175,145, which was further increased to 1,195,763 in 1930 by an additional appropriation of ₱500,000 ($250,000) for the same purpose.

Table 1 shows the increase in enrollment from 1920 to 1930.

TABLE 1.—*Annual enrollment March (school year is from June to March)*

School year	Elementary		Secondary	Total
	Grades I–IV	Grades V–VII	Years I–IV	
1919–20	686, 286	88, 136	17, 204	791, 626
1924–25	904, 079	176, 490	49, 747	1, 130, 316
1929–30	892, 021	205, 957	77, 167	1, 175, 145
Increase	205, 735	117, 821	59, 963	383, 519
Per cent of increase	29. 9	133. 6	348. 5	48. 4

During the decade a decided trend toward a more practical secondary education has set in. This is more noteworthy when it is remembered that before the beginning of the American schools the educational system was purely academic and labor was looked down upon by the educated people. Because of the need of teachers and Government employees who could understand English, the early American schools had to emphasize academic training, but even then vocational education was introduced by the establishment of the commercial school, the nautical school, the school of arts and trades, the Central Luzon Agricultural School, the Philippine Normal School, and the introduction of a home economics curriculum for girls in several of the high schools. At the present time there are in operation 27 provincial trade schools, 8 provincial normal schools, 9 high schools giving the normal course, 14 agricultural schools, 16 rural high schools giving the agricultural

course, 1 secondary home economics school, and 32 high schools and rural high schools offering the home economics curricula and 59 high schools with the academic course.

Table 2 shows the increase in enrollment by curricula in the secondary schools from 1919–20 to 1929–30.

TABLE 2.—*Enrollment by curricula in secondary schools*

School year	General	Normal	Trade	Agricultural	Home economics	Commercial	Nautical	Surveying
1919–20	10, 676	1, 833	266	137	423	344	58	40
1924–25	39, 946	6, 418	1, 398	2, 222	2, 497	571	29	----
1929–30	52, 389	7, 266	5, 231	4, 050	4, 848	595	84	----
Increase, 10 years	41, 713	5, 433	4. 965	3, 913	4, 425	251	29	----
Per cent of increase	390. 7	296. 4	1, 866. 5	2, 921. 9	1, 046. 1	72. 9	50. 0	----

The pronounced increase in enrollment in the intermediate and secondary grades (Table 1), during the period from 1920 to 1930, shows the tendency toward a lengthening period of education for the pupils. During the early years of the American administration overageness was the rule in all grades. Pupils remained in school a short time because of economic pressure. Gradually, however, the children admitted approached the normal age set by law at 7 years for admission to the first grade, and the period the children remained in school lengthened.

Table 3 shows the per cent of total enrollment in the primary, intermediate, and secondary grades during this period. The large increase came during the life of the 30,000,000-peso act, when funds were available for extension of school facilities. In other words, the holding power of the schools is increasing more rapidly than school facilities can be made available to accommodate the pupils in the upper grades.

TABLE 3.—*Per cent of total enrollment in primary, intermediate, and secondary grades*

School year	Primary	Intermediate	Secondary	Total
1919–20	86. 52	11. 50	1. 98	100. 00
1929–25	78. 70	16. 29	5. 01	100. 00
1929–30	76. 12	17. 31	6. 57	100. 00

Hand in hand with the increased enrollment went an increase in the professional training of teachers. Although the teaching force was increased by 9,997 new teachers during this period, the educational qualifications required for teachers were raised considerably. The average Filipino teacher in 1919–20 was an undergraduate of

the secondary school; in 1929–30 he was a secondary-school graduate. While in 1919–20 only 742, or 4.3 per cent, of the teachers were graduates either of a secondary normal school or a college of education, in 1929–30 5,257 such teachers were employed. This is 19.2 per cent of the teaching force.

Tables 4 and 5 show the number of American and Filipino teachers employed and the educational qualifications of the Filipino teachers.

TABLE 4.—*Classification of teachers (March)*

School year	American					Filipino					Grand total
	Primary	Intermediate	Secondary	Supervisor	Total	Primary	Intermediate	Secondary	Supervisor	Total	
1919–20	16	24	239	62	341	13,567	2,967	208	492	17,234	17,575
1924–25	19	16	267	20	322	18,744	5,612	840	633	25,829	26,151
1929–30	22	18	237	17	294	17,848	7,200	1,584	646	27,278	27,572
Difference between 1919–20 and 1929–30	6	—6	—2	—45	—47	4,281	4,233	1,376	154	10,044	9,997

TABLE 5.—*Educational qualifications of Filipino teachers (August)*

Courses completed	Number of Filipino teachers completing various courses					
	Total			Percentage		
	1920	1925	1930	1920	1925	1930
Grade 7 or less	10,967	8,136	2,470	63.64	24.02	7.43
1 to 3 years of a secondary course	4,277	11,117	7,228	24.82	45.08	21.58
Secondary curricula (all types)	956	4,679	13,302	5.55	22.62	54.07
1 to 3 years of college (includes P. N. S.)	827	1,227	2,904	4.80	5.68	11.91
4 years college or better	28	137	1,228	.16	2.60	5.01
All others	179	533		1.03		
Total	17,234	25,829	27,132	100.00	100.00	100.00

It being one of the objectives of the public-school system to give the people of the Philippine Islands a common language—English—all instruction in the public schools is in this language, and more emphasis is therefore given to reading and language in the elementary grades than in continental United States schools. In line with this policy, extensive reading in supplementary and library books is encouraged. As rapidly as finances permit, libraries are being established and enlarged in the schools. These libraries are financed from a matriculation fee fixed by executive order of the Governor General at ₱2 ($1) for each pupil in grades 5 to 7, inclusive, and ₱4 ($2) for each pupil in the secondary schools, of which 60 per cent

may be used for library and 40 per cent for athletic purposes, and from contributions of parent-teacher associations and school benefits.

Table 6 shows the increase in library facilities in the past 10 years.

TABLE 6.—*Library facilities*

School year	Number of—							
	School libraries				Books in school libraries			
	Primary	Intermediate	Secondary	Total	Primary	Intermediate	Secondary	Total
1919–20	2,001		59	2,060	249	515	101,620	351,135
1924–25	2,579	962	92	3,813	292,518	307,687	197,701	797,906
1929–30	3,430	1,148	119	4,697	498,134	695,527	408,585	1,602,546
Increase	2,597		60	2,637	944,197	695,012	306,965	1,251,411

A serious difficulty of the early schools was that of obtaining appropriate textbooks. Texts written for American schools had to be used. These gave place to American texts adapted for use in the islands. During the past decade, however, there has been available a number of texts written by Americans and Filipinos purposely for the Philippine schools. During the school year 1929–30 all the basic texts used in the primary grades and approximately one-half of those used in the intermediate grades were written by Filipinos or by Americans and Filipinos. In the secondary grades 20 of the 32 basic texts, mostly those in literature and in the sciences, are texts used in American high schools. Textbooks are adopted for a period of six years by a board appointed by the Governor General.

As a result of the establishment of a curriculum department in the office of the director of education, curriculum revision has been put on a more scientific basis. Subjective procedure has been abandoned and objective bases are now being sought to guide revising the curriculum. General objectives and divisional objectives for elementary schools, grade objectives for arithmetic in the elementary grades, and first-year secondary mathematics, second-year secondary general science, and fourth-year secondary physics objectives have been worked out.

During the past two years an intensive study of the materials and techniques of instruction in arithmetic has been conducted throughout the islands. Common errors have been isolated and the content of the course evaluated. Practice tests are being developed to fit the peculiar needs of the schools and better teaching technique developed.

Health instruction has held its place as one of the major phases of education in the public schools. Added impetus has been given

this phase of instruction during the past few years by the addition to the director's office of a special supervisor for this work. Interest was aroused through the use of the classroom height and weight record. Better sanitary facilities in schools and a more widespread establishment of school lunch counters for the children have followed.

Supervisors in the director's office keep in touch with the work of the schools and are aided in guiding them by the use of the official magazine of the bureau. This magazine, called the Philippine Public Schools, is published monthly and issued free to every teacher in the system. It serves as a clearing house for the interchange of ideas among the teachers as well as a medium by means of which the director's staff may guide the work of the teachers.

School moneys come from three sources—municipal revenue, provincial revenue, and insular revenue. The municipal revenue is derived from the land tax collected in the town, from a share of the internal-revenue collections, from fees for marriages celebrated in the town, and other minor levies which the municipal council is authorized to make. The provincial revenue is composed of a tuition fee paid by the pupils in the academic secondary school and whatever amount the provincial board wishes to vote for school purposes from the general revenue. The insular revenue depends on the Philippine Legislature. In neither provincial nor insular revenues is there a permanent income for schools. Corresponding to this classification of revenues there are municipal, provincial, and insular schools. Originally municipal schools were primary schools supported by local or municipal revenues and provincial schools were intermediate schools supported by provincial revenues. Special higher schools, such as the Philippine Normal School, the Central Luzon Agricultural School, the Nautical School, the Philippine School of Arts and Trades, the School of Commerce, and the School for the Deaf and the Blind were supported entirely by insular funds. Later as the secondary schools were established in the provinces and more intermediate classes became necessary, the primary and intermediate schools were combined and known as elementary schools and were made municipal schools, leaving the secondary school only to be supported by the province. This is the organization that exists to-day. However, the elementary schools have increased to such an extent that the municipal funds are entirely inadequate to maintain them and it has become necessary for the insular government to aid the municipalities by an ever-increasing amount of insular aid each year. This aid takes the form of grants for maintenance and special appropriations for permanent improvements. Table 7 shows the amounts spent by the insular, provincial, and municipal governments for all school purposes during the last 10 years.

TABLE 7.—*Total expenditures for school purposes (in pesos)*

Year	Insular	Provincial	Municipal	Total
1920	12, 802, 247. 83	1, 050, 492. 28	4, 358, 799. 59	18, 211, 539. 70
1921	14, 313, 825. 35	3. 278, 606. 40	4, 709, 286. 54	22, 301, 718. 29
1922	14, 884, 237. 76	2, 463, 632. 87	4, 721, 068. 95	22, 068, 939. 58
1923	14, 440, 716. 69	2, 657, 264. 74	5, 104, 551. 06	22, 202, 532. 49
1924	15, 307, 445. 76	2, 909, 016. 32	6, 313, 078. 47	24, 529, 540. 55
1925	15, 322, 761. 65	3, 071, 864. 55	5, 753, 859. 29	24, 148, 485. 49
1926	16, 291, 895. 30	3, 563, 253. 10	5, 569, 285. 92	25, 424, 434. 32
1927	17, 945, 183. 18	3, 995, 459. 19	5, 678, 864. 45	27, 619, 506. 82
1928	18, 969, 097. 81	4, 402, 545. 65	5, 623, 322. 52	28, 994, 965. 98
1929	19, 819, 438. 12	5, 174, 105. 42	5, 594, 808. 57	30, 588, 352. 11

The amount of ₱30,588,352.11 spent for schools in 1929 is 20.11 per cent of the total governmental expenditure of the islands for that year. Of this amount, 66.39 per cent was used for salaries, 20.09 per cent for other current expenses, and 13.52 per cent for buildings, grounds, and other permanent improvements.

III. WORK OF THE OFFICE OF EDUCATION FOR THE NATIVES OF ALASKA[1]

By William Hamilton
Assistant Chief, Alaska Division, Office of Education

The work of the Office of Education with reference to Alaska has hitherto included administrative authority with respect to the education, support, and medical relief of the aborigines and supervision of the reindeer industry. During the fiscal year 1930 the responsibility of the Office of Education in connection with the reindeer industry was transferred to the Governor of Alaska, on the recommendation of the Commissioner of Education.

In order that the headquarters of administrative authority should be located as near as possible to situations demanding attention, the office of the chief of the Alaska division has been transferred from Seattle to Juneau, the purchasing of supplies, the making of arrangements for the transportation of appointees and supplies, and the operation of the U. S. S. *Boxer* remaining as duties to be performed by the purchasing agent and office manager in Seattle.

The amount granted by Congress for the education and support of the natives of Alaska during the year 1930 was $580,400 and for their medical relief $171,780. Ninety-three schools were maintained with 195 teachers, an enrollment of 3,899, and an average attendance of 3,029.

In performing its duties to provide schools for and to care for the health and general welfare of the aboriginal races of Alaska the Alaska division in the Office of Education has been confronted with a formidable task.

If Alaska, with its area of 586,400 square miles, were superimposed on the United States, its northernmost cape would be on the boundary between the United States and Canada, its southeasternmost extremity would touch the Atlantic coast at the State of Georgia, the Aleutian Islands would skirt the Mexican border, and the westernmost of its islands would lie in California.

In this great Territory the 27,000 Eskimos, Aleuts, Athabascans, and Thlingets are scattered along the 25,000 miles of coast and on the great rivers, in villages varying from 30 or 40 to 300 or 400 persons.

[1] On March 16, 1931, administration of the education and medical service for the natives of Alaska was transferred to the Bureau of Indian Affairs.

In the course of years the work of the Office of Education in Alaska has expanded until now its schools are far flung throughout that northern land, from its southern boundary to its northernmost cape—in the villages on the forested islands of southeast Alaska, on the lonely shores of the southwest, on the storm-swept islands of the Aleutian chain, along the great rivers, beside fog-ridden Bering Sea, on the frozen plains of the far north, and beside the ice-bound waters of the Arctic Ocean. To some of the settlements the annual visit of the supply vessel furnishes their only means of communication with the rest of the world. In many instances the school is the only elevating influence in the village.

In the Alaskan native community the school is the center of activity—educational, industrial, civic, and social. The schoolroom is available for public meetings for the discussion of the affairs of the village or, occasionally, for social purposes. Some of the buildings contain a laundry and baths for the use of the natives. The school workshop is available for the making and repair of boats, sleds, and furniture. Night-school sessions are held by many teachers for adults who realize that a knowledge of English is essential to enable them to meet the changing conditions which confront them.

The Alaska school service demands of the teachers not professional qualifications only. Philanthropic motives, good judgment, patience, initiative, and ability to do effective work under adverse circumstances are essential to the success of a teacher in a native Alaskan village. From the nature of things, a teacher in an Alaskan native school must widen the scope of his activities beyond the schoolroom. Of necessity he assumes the functions of a community leader, an arbitrator in disputes, a censor of morals, a preserver of peace, and a public nurse and medical adviser. He must have courage and resourcefulness to cope successfully with all manner of emergencies.

During the year the professional requirements of teachers for the Alaska school service were revised so that they are now up to the standard required by other school systems. For the position of teacher, graduation from high school, two years' normal-school training, or graduation from a college of recognized standing, with at least one year of successful teaching experience, are required. For the position of assistant teacher, graduation from high school, two years' normal-school training, and experience in practice teaching are required. These qualifications may be waived with reference to teachers who are to give instruction in domestic science or in the various industries or who are to perform community or welfare work, also with reference to natives who are recommended for appointment as assistant teachers.

It is gratifying to note that the natives of Alaska are rapidly becoming qualified to serve as assistant teachers. In southeastern Alaska, where the natives have had the benefit of schools for a longer period than those in other sections, native teachers make up 28 per cent of the number of teachers in that district. Native teachers constitute the entire teaching staff at Klawock, the second largest native school in Alaska, with an enrollment of 112 and a curriculum extending through the twelfth grade.

In all of the day schools instruction in some form of industrial work is given, principally in cooking and sewing, to the girls, and in carpentry to the boys. When no other place is available, cooking is often taught in the teacher's own kitchen. By purchasing groceries and other supplies at the local stores the natives frequently supplement the materials furnished by the Office of Education. In this way the domestic-science work at some of the day schools has become practically self-supporting.

To give specialized training in industries for which the day schools are not equipped, industrial boarding schools are in operation at White Mountain, on Seward Peninsula, with 90 pupils; at Kanakanak, on Bristol Bay, with 72 pupils; and at Eklutna, on the Alaska Railroad, north of Anchorage, with 92 pupils. To White Mountain are sent Eskimo boys and girls from the villages on the northwestern coast as far as Point Barrow. Kanakanak is the center for vocational training for the Aleuts and for the Eskimos of southwestern Alaska. The Alaska Railroad makes Eklutna readily accessible for pupils from central Alaska and from the upper Yukon region.

The curriculum of these schools includes such industries as will improve the living conditions of the natives and afford them assured means of support. Instruction is given in carpentry, house building, furniture making, cooking, bread baking, sewing, the making of clothing, boat building, sled construction, the operation and repair of gas engines, the making of snowshoes, the tanning of skins, taxidermy, the carving of wood and ivory, blanket making, and basket weaving. To train the natives for effective service in their cooperative stores, instruction is also given in typewriting, stenography, clerical work, and business methods.

Centuries of experience in the use of tools of their own contrivance have developed in the native races of Alaska mechanical skill of a high order, which they successfully apply in the various industries taught in the schools.

The expense of conducting the three industrial schools during the fiscal year 1930, including the expenditures for salaries, supplies, and the construction and repair of buildings, was as follows: For Eklutna, $63,522.81; for Kanakanak, $43,702.87; and for White Mountain, $43,132.11.

Preliminary steps have been taken toward the establishment of an industrial boarding school for the natives of southeastern Alaska. The site selected for this school is a tract on Shoemaker Bay, 4 miles south of the town of Wrangell, including approximately 1½ miles of water front with an average width of one-half mile. The complete estimate contemplates the erection of a group of five buildings at a total cost of $171,000. The $71,000 available for expenditure during the fiscal year 1931 will be used in preparing plans, surveying the tract, clearing the land, and in erecting the principal school and dormitory buildings, in so far as the appropriation is sufficient to cover these projects.

To provide a home for orphans and other young children of preschool and early school age, an orphanage, with a staff consisting of a matron, an assistant matron, and a cook, has been established in one of the former Fort Gibbon buildings, at Tanana, which have been transferred to the Office of Education. To this institution will be taken homeless young children who have hitherto of necessity been cared for in the industrial boarding schools at Kanakanak, Eklutna, and White Mountain. This will have the desirable effect of restricting attendance at the industrial schools to pupils of suitable age.

For the medical relief of the natives the Office of Education employed, during the fiscal year 1930, 9 physicians and 29 nurses. It maintained hospitals at Juneau, Tanana, Akiak, Kanakanak, and Kotzebue. Each hospital is a center of medical relief for a very wide territory, and each physician makes extended tours through his district.

Qualifications of employees in the Alaska medical service have been definitely prescribed. For the position of physician, graduation from a legally chartered medical school whose requirements for graduation are not less than the requirements of the Association of American Medical Colleges is required, as well as evidence of the completion of a year's interneship in a recognized hospital, or of successful practice for at least four years, and a license from the medical examining board of the Territory of Alaska.

For the position of nurse, graduation from a school for nurses of recognized standing is necessary, as well as evidence of successful professional practice for at least one year.

For the position of dentist, graduation from a legally chartered dental college of recognized standing is required, as well as a certificate from the board of dental examiners of the Territory of Alaska.

The hospitals, physicians, and nurses serve only the more thickly populated districts. In the vast outlying areas the teachers must, of necessity, extend medical aid to the best of their ability. Ac-

cordingly, the teachers in settlements where the services of a physician or nurse are not available are supplied with simple remedies and instructions for their use. In the majority of the native villages the teachers are the only "doctors" and "health officers" and the school often serves as a dispensary for the natives within a radius of several hundred miles. As part of the day's work, the teacher visits the homes in the village to see that hygienic conditions are maintained, to show mothers how to care for and feed their infants, to demonstrate the proper ways of preparing food, and to inculcate cleanliness and the necessity of ventilation.

To natives and white men scattered along thousands of miles of the Yukon River and its tributaries the Office of Education's Yukon medical boat furnishes the only means of securing medical and dental relief. Each year, in a cruise during June, July, August, and September, and extending as far as the Yukon delta, the services of the physician, the two nurses, and the dentist on this boat are in constant demand at each stopping place. The work includes distribution of medicines with instructions for their use, extending first aid, instructions regarding the care of the sick, advice concerning the care and feeding of children, performing such operations as can be attended to on the boat, extracting and filling teeth, and the transportation of a limited number of patients to the hospitals at Tanana and Fairbanks. During the cruise of 108 days in the summer of 1930, 64 villages and camps were visited, 1,493 patients were treated, 234 surgical operations, including 194 tonsillectomies, were performed. The total number of dental treatments was 4,123.

The bureau's medical work is supplemented by contracts with hospitals at Anchorage, Nome, Cordova, Wrangell, and Fairbanks, in Alaska; with the Children's Orthopedic Hospital, Firlands Sanatorium, and Riverton Sanatorium, in Seattle. In a few instances the services of specialists in Seattle have been secured for diagnosis and the treatment of diseases of the eye, ear, and nose.

One of the greatest problems of the Office of Education in carrying on its work in Alaska is providing transportation from Seattle of the personnel and supplies required in connection with its activities in the remoter villages, many of which are not reached by commercial lines. Transportation to these places had been secured with difficulty and by the payment of heavy charges to small trading schooners. The problem was partially solved by the transferring from the Navy Department to the Department of the Interior in April, 1920, for use in the Alaskan work of the Office of Education, of the U. S. S. *Boxer*, a brigantine sailing vessel of 500 tons. A Diesel engine was installed in the vessel, and it was refitted for its work in the north Pacific and Arctic Oceans. This staunch little vessel has rendered

effective service, but on account of the continued expansion of the work a larger boat is a necessity.

Each year the *Boxer* carries from Seattle to the coast villages of Alaska and to the distributing points at the mouths of the great rivers appointees entering on duty, together with a heavy tonnage of supplies and equipment.

Leaving Seattle in the spring, the vessel makes its first voyage of the season through the waters of southeastern Alaska and along the southern coast as far as Kodiak Island; on its second voyage it visits the settlements on the shores of the Alaska Peninsula and of Bering Sea; its third voyage is the long cruise to the Eskimo villages beside the waters of the Arctic Ocean as far north as Point Barrow. Its passengers are the teachers, physicians, and nurses going to or returning from their voluntary exile. Its cargo includes the lumber and hardware for use in constructing school buildings or hospitals, the coal and food supplies required for a year, and a year's supply of the books, furniture, and equipment needed by the schools. In its three voyages during the season, the *Boxer* covers about 20,000 nautical miles.

Through employing Alaskan natives as sailors, the *Boxer* also functions as a training ship in the educational program of the office.

Availing themselves of the annual visit of the *Boxer*, many natives send to Seattle reindeer meat, packages of furs, fur clothing, carved ivory, baskets, and rugs, which are sold for them through the Seattle Fur Sales Agency. The proceeds of all sales are sent to the individual natives, applied to the settlement of their accounts with the Seattle merchants, or placed to their credit in savings banks, as requested. The captain of the *Boxer* annually delivers to settlements along the Arctic coast many tons of food supplies, packages of clothing, furniture, and building materials purchased with the proceeds of the sale of furs and other commodities sent out by the Eskimos during the previous summer.

The Office of Education encourages the establishment in native villages of cooperative mercantile stores, financed by native capital and conducted by the natives themselves, with the advice of the teachers of the local schools. This results in securing articles of food and clothing at equitable prices and in acquiring self-confidence and experience in business affairs by the natives. Such enterprises are in successful operation in 18 villages in widely separated sections of the country.

The importation of reindeer from eastern Siberia into Alaska by the Office of Education, as a means of livelihood for the Eskimos of Alaska and to furnish them with food and clothing, began in

1891 and continued until 1902, a total of 1,280 reindeer being imported during that period.

Early in its history the reindeer service became an integral part of the educational system for northwestern Alaska, the raising of reindeer being the form of industrial education best adapted to the Eskimos inhabiting the barren wastes of Arctic and sub-Arctic Alaska. Herders from Lapland were brought to Alaska to instruct the Eskimos in the care and management of reindeer. The reindeer were distributed among the Eskimos under a system of apprenticeship covering a period of four years.

At the satisfactory termination of his apprenticeship the Eskimo received a certain number of reindeer as the nucleus for his own herd. Year after year new centers were established and the reindeer industry extended over a wide area until the ownership of reindeer is now distributed among more than 2,500 natives. Reindeer herds are found throughout the entire coastal area from Point Barrow to the Aleutian Islands. The total number of deer is estimated to be more than 600,000. Of the 78 herds, 59 are owned by natives, 7 are owned by white men, 3 by Lapps, 3 by the Government, 5 jointly by white men and natives, and 1 by a mission. There are 320 herders on the ranges occupied by the native-owned deer.

The greatest problem in connection with the reindeer industry is providing a market for the surplus meat, which is greatly in excess of local demands. There is also danger that the grazing grounds will be stocked beyond their carrying capacity.

From its inception, the reindeer industry among the natives was directed by the Office of Education through its superintendents and teachers. While the herds were small and located in the vicinity of the schools, this arrangement was satisfactory. With the phenomenal increase in the number of deer, the consolidation of the herds, and the distribution of the animals over widely separated areas, it has become impossible for the teachers to exercise proper supervision of the herds in addition to their other duties. By the order of the Secretary of the Interior, October 3, 1929, all matters affecting the reindeer industry in Alaska were transferred to the jurisdiction of the Governor of Alaska.

The growth of the reindeer industry rendered it urgent that provision be made for the allotment of grazing lands. By the act of March 4, 1927, authority was granted for the establishment by the Secretary of the Interior of grazing districts in Alaska and for the granting of leases for definitely described areas therein. The provisions of this act are being carried into effect as rapidly as possible by the General Land Office. This action will regulate the occupancy

of grazing lands by the reindeer herds and prevent friction among the owners of reindeer in regions where the herds are most numerous.

With the great increase in the number of reindeer and the entrance of white men into the industry, the need for scientific attention became apparent, resulting in the assignment by Congress to the Bureau of Biological Survey of the duty of making investigations in connection with the diseases and parasites affecting the reindeer; breeding, feeding, and management practices, and the grazing resources of the Territory.

An interdepartmental committee of representatives of the Department of the Interior and of the Department of Agriculture, appointed to consider problems in connection with the reindeer industry, has issued a statement in order to make clear to State and municipal health officers, to conservation and game commissioners, and to the public, that reindeer meat may be received into the United States and shipped interstate without inspection. No contagious disease has ever been encountered, and no reason has appeared why the sale of reindeer meat should require Federal, State, or municipal inspection for the detection of disease. However, State or municipal inspection of reindeer meat may be made when desirable to determine whether the meat may have been spoiled due to improper storage or handling. For identification purposes the committee has prescribed a tag and an ink brand to be affixed to and placed upon the carcass of each reindeer to be shipped out of Alaska.

Based on a preliminary survey of the grazing areas of Alaska suitable for reindeer production made in 1921, it was estimated that between 3,000,000 and 4,000,000 reindeer could be supported on the 150,000 to 200,000 square miles of open grazing lands, from which 1,000,000 or more animals would be available annually for slaughter. Later investigations have shown that approximately 350,000 square miles of the Territory are of value for grazing. This enlarged area found suitable for grazing use should be able ultimately to support a considerably larger number of reindeer with a correspondingly increased number available for slaughter. The greater part of this area is in the treeless tundra bordering the Bering Sea and the Arctic coast.

Since the beginning of the work of the Office of Education for the natives of Alaska in 1884 great progress has been made in the advancement in civilization of the aboriginal races of Alaska, but the task is far from complete. All of the principal settlements have been reached, but there are small villages, remote and difficult of access, in which the natives still exist in their primitive conditions. There are villages out on the tundra and along the coast of Bering Sea and the Arctic Ocean where the natives live in small sod houses, partly

underground, to which access is gained through a low tunnel. In many cases the only heat is that thrown off by the bodies of the occupants. The light filters through the window of seal intestines in the roof; the floors are indescribably filthy with litter and refuse. In mild weather these sod houses are wet from seepage and from moisture dripping from the roof and walls. The natives living in these hovels are dressed in parkas made of the skins of wild ducks, sealskin trousers, and boots of fishskins or sealskins. In summer they live on the flesh and eggs of wild birds and a few seal and salmon. In winter they depend for food upon fish, which they catch through holes in the ice. These people live from hand to mouth and have no desire to better their conditions.

In villages where teachers have been stationed for a number of years there are well-constructed, 2-story log or frame houses, with linoleum on the floors, paper on the wall, and containing ranges, heaters, comfortable beds, and good furniture. These natives have on hand supplies of dried fish and reindeer meat, wild berries, and sometimes vegetables grown in their own gardens. They have a stock of wood for winter use, and from their reindeer herds they can secure meat for their own use and for sale, and also skins for clothing.

In southeastern Alaska, where the natives have had the benefit of schools and missions for very many years, conditions in some of the native villages compare favorably with those in the white settlements.

There is no doubt but that the natives of Alaska are being developed in education and industry so as to become an important factor in the economic life of the Territory. Many natives have assumed the responsibilities of citizenship. Some of them are comparatively wealthy, owning their own homes and fishing vessels. Thousands of natives are employed in the canneries of southern Alaska. Fleets of power boats belonging to and operated by natives transport fish from the fishing grounds to the canneries. Many natives are employed in the mines. Others are merchants, boat builders, carpenters, guides, pilots, fishermen, trappers, loggers, ivory carvers, basket weavers, and curio makers. The Office of Education employs as teachers the brightest graduates of its schools. Native girls showing qualifications for medical work are trained in the hospitals as nurses. Natives are employed as cooks, janitors, and orderlies in the hospitals. Natives are found in the legal and clerical professions. Throughout northern and western Alaska the majority of the herds of reindeer are owned by natives.

IV. INDIAN EDUCATION IN THE 48 STATES

By W. Carson Ryan, Jr.,
Director of Education, United States Indian Office

INTRODUCTION

Developments in Indian education during the 2-year period 1928–1930 followed more or less directly upon a careful study of Indian administration made by the Institute for Government Research in 1927 at the request of the Secretary of the Interior. In the so-called Meriam report,[1] education received consideration as one of the major activities of the Indian Service, and the educational or developmental aspects of the Indian task were emphasized throughout. This and the current investigation by the Committee on Indian Affairs of the United States Senate indicate the significant effort that is being made to understand the problem of the American Indian and to formulate a program, especially in education. Further evidence of the attention being given to Indian education is afforded by the increased appropriations—the appropriation of $10,322,500 made available for 1930, representing a considerable increase over the preceding year, was followed by one of $11,509,701, and the amount for next year will be $12,105,000.

INDIAN SCHOOLS

Stated quantitatively, Indian education involves some 350,000 people scattered over more than 200 jurisdictions in 28 States. Although the total number of Indians is not large, they comprise widely varying groups derived from at least 50 different linguistic stocks and living in conditions that range from perhaps the highest levels of any of the people of the United States to the lowest. The same tribe or band may have as its members some who are living in a precarious economic and social situation and others who are among the hundreds attending universities or other higher educational institutions or are eminently successful in business or the professions. About two-thirds of these Indians are "wards of the Government" in the sense that they have certain tribal or heirship rights, while

[1] Meriam and Associates. The Problem of Indian Administration. Baltimore, Johns Hopkins University Press, 1928.

others long since freed from the guardianship relation may be receiving some Government care or be seriously in need of it.

The Federal Government maintains a system of boarding and day schools for Indian children and cooperates with the public schools by paying tuition for Indian children in certain cases, particularly where the normal taxable resources are reduced as a result of the existence of untaxed Indian land. Mission and private schools also enroll some Indian children. No figures are entirely reliable in this field, but data compiled in 1930 indicate that of the 103,368 Indian children 6 to 18 years of age, 67,525 are definitely known to be enrolled in some school, with the probability that close to 80,000 are enrolled if all Indian pupils attending town schools in Oklahoma are included. A majority of all the Indian children are now attending public schools, the number having increased rapidly in the past few years. Government boarding schools enrolled more than 21,000 in 1930, and Government day schools 4,205, while mission and private schools accounted for between 7,000 and 8,000. School enrollment of the Indian children, arranged in the order of number of Indian children in the States, for the year ending June 30, 1930, is as follows:[2]

State	Indian children 6 to 18	Enrolled in some school	Percentage enrolled	Public school	Government boarding schools on the reservation	Other Government boarding schools	Government day schools	Mission and private schools
Oklahoma	37,235	25,322	70	19,621	2,472	1,704	----------	1,525
Arizona	14,932	8,238	53	344	2,844	2,488	966	1,596
New Mexico	8,884	4,850	54	108	1,301	1,538	1,189	714
South Dakota	7,592	5,719	75	2,021	870	1,307	743	778
Minnesota	5,261	4,499	85	3,034	375	575	----------	515
California	4,924	2,941	59	1,907	208	601	182	43
Montana	4,529	3,790	84	2,169	445	507	238	431
North Dakota	3,733	2,294	62	1,022	303	606	78	285
Washington	3,676	1,878	53	1,266	178	275	64	95
Wisconsin	3,530	1,568	46	336	325	111	30	766
Nebraska	1,363	958	71	485	----------	380	----------	93
Nevada	1,272	823	65	323	----------	281	219	----------
North Carolina	1,261	1,040	83	512	428	32	68	----------
Oregon	1,171	895	76	443	143	163	37	109
Idaho	1,024	850	83	353	251	90	15	141
Wyoming	571	493	86	125	102	31	----------	235
Mississippi	534	170	32	----------	----------	20	150	----------
Kansas	518	320	61	97	----------	202	21	----------
Utah	437	350	80	80	113	62	86	9
Michigan	372	275	73	100	----------	55	----------	120
Colorado	233	176	76	53	----------	17	105	1
Florida	194	14	7	----------	----------	----------	14	----------
Iowa	122	62	51	9	----------	53	----------	----------
Total	103,368	67,525	65	34,408	10,358	11,098	4,205	7,456

Contracts were made during 1930 for payment of tuition for Indian children with 861 boards of education. It is recognized, of course, that merely placing Indian children in public schools, even where the community is cooperative, is by no means the whole solu-

[2] Some of the figures in the table are admittedly estimates.

tion. Changes that have been made are enabling the service to plan for a better follow-up of Indian children and the working out of more satisfactory arrangements between the home and the school. Some of the probable next steps in Federal-State relations in education are as follows:

1. Furnish to the State education authorities the most recent accurate data available as to the location of Indian children of school age in their States.

2. Wherever State and local communities are willing and able to take over the schooling of Indian children, give them every possible encouragement and help.

3. Study carefully each existing boarding-school situation to determine whether the school is one that should be closed soon, continued for some other purpose, or maintained indefinitely.

4. Put existing Indian schools into a position where they constitute a real part of the educational program of the State, using State courses of study wherever possible as a basis and meeting State requirements in so far as these are consistent with an education planned to meet the needs of Indian children.

5. Making better tuition arrangements, using tuition payments in particular as a means for getting a better quality of education for both whites and Indians; better qualified teachers, health follow-up, hot lunch, visiting teacher (school social worker) to work between the school and the home.

6. Develop a more modern type of supervision:

(*a*) Supervisors from the Indian Office who seek to help the people in the field rather than merely to inspect; these supervisors to visit public and private schools where Indian children are as well as Government Indian schools.

(*b*) In States where numbers warrant, a State supervisor of Indian education as part of the staff of the department of public instruction, working directly under the State superintendent or commissioner of education.

One of the chief points in which there has been improvement in the past two years is the extension upward of school facilities in boarding schools and elsewhere. Eight Indian boarding schools now have high-school grades through the twelfth, and of the 12,420 pupils in nonreservation schools, over 7,000 are in junior and senior high-school grades.

HEALTH AND FEEDING OF INDIAN SCHOOL CHILDREN

There has been real progress in the past two years on the physical side of Indian schooling, particularly in the feeding of Indian chil-

dren in boarding schools. Of the $1,100,000 allowed by Congress in 1930, $195,000 was allowed for additional subsistence, $50,000 for noonday lunches in the day schools, $40,000 for subsistence of children during the summer, and $50,000 for clothing. By this and succeeding acts, provision was made for sufficient food allowance to furnish a daily per capita provision of 37.8 cents, this being the amount set by an impartial committee of specialists from Government departments. While the schools undoubtedly vary in the success with which they administer this food provision, the almost universal testimony is that the food situation has been satisfactorily solved. Similar results have followed on clothing. While individual schools may still be found where the clothing allowance is unsatisfactory, on the whole sufficient clothing is being provided.

INSTITUTIONAL LABOR

It was formerly regarded as necessary to use half the time of children from the fourth grade up in carrying on the institutional work. When Indian boys and girls came into school late and were consistently several years "overage," the institutional labor was not so serious a problem as it later became. When, however, Indian children began in many places to approximate whites in the age at which they started school and were in grades at more nearly where they belonged, it became evident that the young children should no longer have any considerable institutional burdens. Congressional action has made it possible to hire additional adult labor, purchase laundry machinery and other labor-saving devices, and employ additional teachers. Two hundred assistants and laborers were put in at the schools and hundreds of pieces of new machinery—kitchen and bakery equipment and laundry apparatus. As a result, in nearly all the Indian schools, boys and girls are attending school for the full session through the sixth grade, and three-fourths of the day for the grades beyond the sixth. Gradually the institutional labor is being placed on the only basis on which it can be justified educationally, namely, first, as a contribution from each child to the common task such as would be expected in a good family; second, as part-time work included within a planned vocational-training program. It is not claimed that this stage has been reached in Indian education, but efforts of the past year have brought the goal measurably nearer.

NEW CONSTRUCTION

In the period of the World War and immediately afterwards, building programs everywhere in the United States were seriously

retarded. Indian school plants suffered more than others from neglect, and the process of recovery was slower. Hence the need for an extended construction program, recognized in recent congressional legislation. School construction projects authorized for this year and next total approximately $3,000,000.

IMPROVEMENTS IN PERSONNEL

Congressional appropriations for the past two years have made possible significant steps in raising qualifications, increasing salaries, setting up positions especially intended to meet the vocational needs of Indian youth, and in providing the professional direction for the whole Indian education enterprise that is regarded as essential.

The entrance requirements for the Indian service educational positions have been raised to such a point that, although they are still below the requirements of the better urban-school systems, they are above the minimum requirements of most of the States. It has been possible to increase the entrance requirements for teachers of primary and intermediate grades so that they are now on a par with those for junior high school—three years of preparation beyond the secondary school and a year of experience, or four years of preparation in a teachers college or university or college of recognized standing. For the first time in the history of the Indian Service it has been possible to place the position of superintendent of Indian schools and school systems on a professional basis, with the requirements of university training and special work in school administration and, in the case of both superintendents and principals, the salaries have been made somewhere near the amount provided in modern salary schedules for professionally qualified people.

As a further result of increased congressional appropriations, the Indian Service has been able to make substantial additions to the group at Washington headquarters and in the field who are responsible for technical educational direction. Some of the newer positions of this sort include an assistant director of education with special preparation in vocational guidance; supervisors of home economics to help carry forward one of the best established parts of the Indian Service program; a supervisor of elementary education and six demonstration teachers or supervisors working under her direction; a supervisor assigned to public-school relations; a supervisor of trade and industrial education; and a director of employment. In the schools the following are among the types of positions that are being set up: Heads of departments of industrial education; agricultural education, home economics, and vocational guidance;

teachers of native crafts; vocational counsellors and school social workers; and special teachers of music, art, and physical education.

Particular emphasis is being placed on native arts and crafts, in the hope that the survivals of Indian culture may be preserved and that wherever possible the Indian of to-day may not only be successfully adjusted to white life as an independent citizen but may make his special cultural contribution to our western civilization.

V. EDUCATION OF NEGROES

By Ambrose Caliver

Specialist in the Education of Negroes, Office of Education

INTRODUCTION

The results of the various activities and interests in the education of the Negro from preemancipation time, through the reconstruction period, up to the present are reflected in Figure 1. This diagram shows that the Negro's desire for an education is not abating. While there is a slight decrease in the percentage the school population bears to the total Negro population, the percentages of school attendance and literate Negroes show marked increases.

Figures 2 and 3 also show the educational progress made by the Negro. In 1916 there were only 64 [1] public high schools; this number had risen to 831 in 1929.[2] The public high-school enrollments for 1916 and 1928 were 8,707 and 164,000, respectively. According to Doctor Klein [3] the increases from 1916 to 1927 for the 79 colleges which he surveyed were: For number of colleges, 155 per cent; enrollment, 550 per cent; income, 275 per cent; property value, 146 per cent; and endowments, 185 per cent.

PUBLIC EDUCATION

Availability of schools.—Statistics on the education of the Negro are fragmentary and meager; this is particularly true with respect to adequacy and availability of school facilities. Some idea of the situation may be obtained, however, from the facts revealed by S. L. Smith,[4] who found that of the 24,079 schools for Negroes in 14 Southern States, during 1925–26, 22,494, or 93.4 per cent, were rural. Of this number 15,385, or 63.8 per cent, were 1-teacher schools; 4,525, or 18.8 per cent, 2-teacher schools; and 1,702, or 7.1 per cent, were 3-teacher schools. The average length of school

[1] Jones, Thomas Jesse. Negro Education. Washington, Government Printing Office, 1917. (U. S. Bureau of Education. Bulletin, 1916, No. 38.)

[2] Favrot, Leo M. Some Facts about Negro High Schools and Their Distribution in Fourteen Southern States. High School Quarterly, April, 1929.

[3] Klein, A. J. Survey of Negro Colleges and Universities. Washington, Government Printing Office, 1928. (U. S. Bureau of Education. Bulletin, 1928, No. 7.)

[4] Smith, S. L. Negro Public Schools in the South. Southern Workman, Vol. LVII, November, 1928.

term of these rural schools was 6 months, ranging from 8.7 months to 4.7 months.

It was estimated by the National Interracial Conference in 1928 [5] that for 12 Southern States there were needed at least 5,990 rooms in addition to the 28,379 available at that time, which would neces-

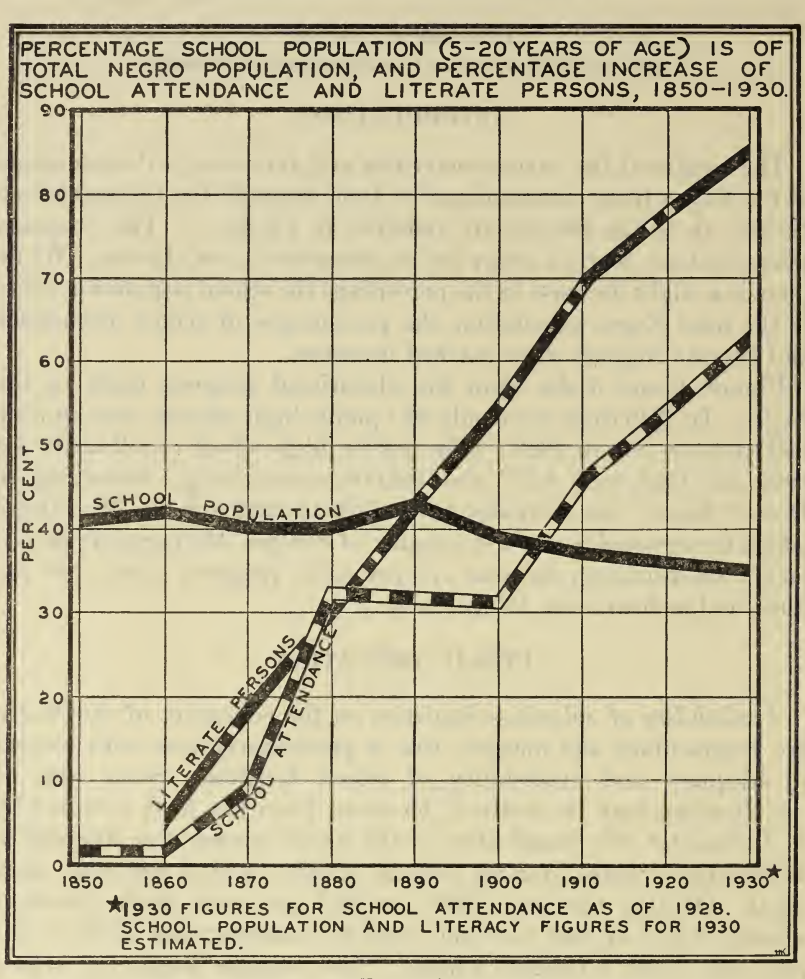


FIGURE 1

sitate an expenditure of about $7,000,000 for this item alone. During the 10-year period from 1918 to 1928 $30,000,000 was spent in new construction for common schools for Negroes in 8 States, while more than $270,000,000 was spent in the same States for

[5] Johnson, Chas S. The Negro in American Civilization. New York, Henry Holt Co., 1930.

whites. This means that 10 per cent as much was spent for Negroes as whites, yet Negroes constituted 30 per cent of the population in these eight States.

According to a recent study [6] there were 282 counties in the South without high-school facilities in which the Negro population was 12½ per cent or more of the total population. This same study re-

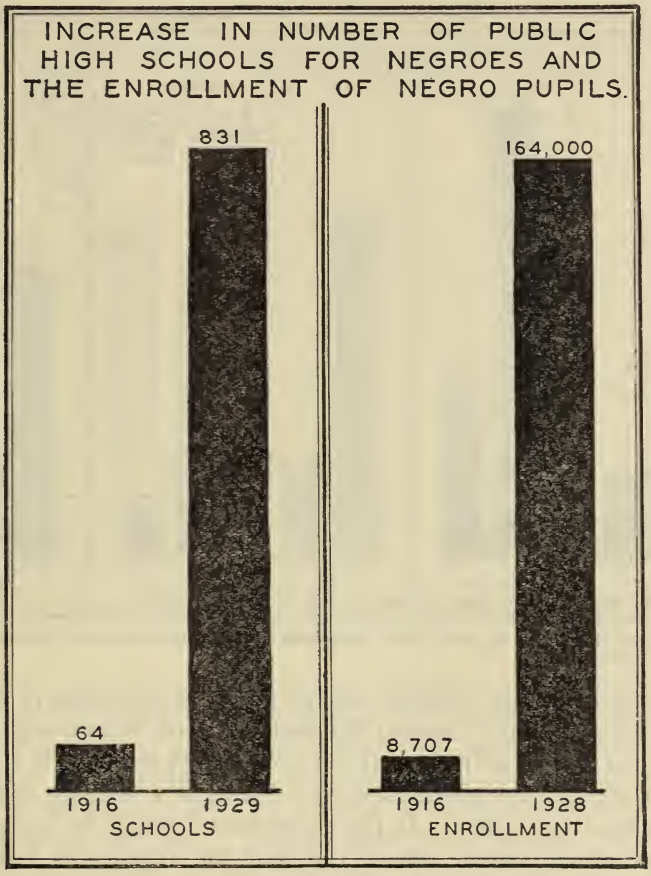


FIGURE 2

vealed that "one-third of the counties of the South with a material Negro population are without high-school facilities for Negroes, either public or private. In these counties are found approximately one-fourth of the Negroes in the South." Table 1 shows conditions in respect to high-school facilities in 14 Southern States.

[6] Favrot, Leo M. Op. cit.

Although this is not a complete picture of the situation the facts here presented are indexes of the availability of education for Negroes.

TABLE 1.—*Number of counties with high schools and total Negro population in them, and number of counties with 12½ per cent or more Negroes in the population but without high schools*[1]

States	With high-school facilities		Without high-school facilities	
	Total number counties	Total Negro population in these counties	Number of counties with 12½ per cent or more Negro population	Total Negro population in these counties
Alabama	45	780, 552	10	87, 748
Arkansas	18	236, 766	13	158, 069
Florida	21	215, 732	31	107, 471
Georgia	42	578, 772	92	617, 980
Kentucky	54	201, 343	1	1, 184
Louisiana	32	478, 346	31	215, 526
Maryland	19	222, 440	3	12, 895
Mississippi	31	487, 643	44	399, 951
North Carolina	71	709, 900	9	42, 842
Oklahoma	36	131, 148	0	0
South Carolina	40	762, 097	6	92, 622
Tennessee	30	294, 819	9	101, 529
Texas	88	706, 576	8	31, 986
Virginia	51	540, 275	25	97, 030
Total	578	6, 355, 409	282	1, 966, 833

Total Negro population, 14 States		8, 685, 585
Total Negro population, 578 counties	6, 355, 409	
Total Negro population, 282 counties	1, 966, 833	
		8, 322, 242
Total Negro population, other counties (less than 12½ per cent Negro)		363, 343

[1] Favrot, Leo M. Some facts about Negro high schools and their distribution and development in 14 Southern States. Op. cit.

A study of county-training schools in the South made in 1923 by L. M. Favrot, of the General Education Board, found only 74 per cent of the pupils living within a radius of 2½ miles. Of the total 31,125 pupils of the schools studied, 1,072 came a distance of 5 miles or more to attend school. In this connection it should be remembered that the county-training schools represent the situation at its best.

The average length of the school year for the entire country for 1927–28 was 171.5 days; for the Negro schools it was 131 days, allowing 75 per cent as much time for the Negro child as for the average child in America to accomplish the same task. When we add to this the poor-attendance record of the Negro child, the percentage of term actually attended is reduced even further. Some encouragement may be gained from the fact, however, that for the

entire country during the past 9 years the average length of school term has increased 16 days, or 11 per cent for the whites, and 11 days, or 9 per cent, for the colored. And yet, according to a recent study, from 1925–26 to 1927–28, one Southern State increased the number of school days for white children by 21 and decreased the number for colored children by 28.[4]

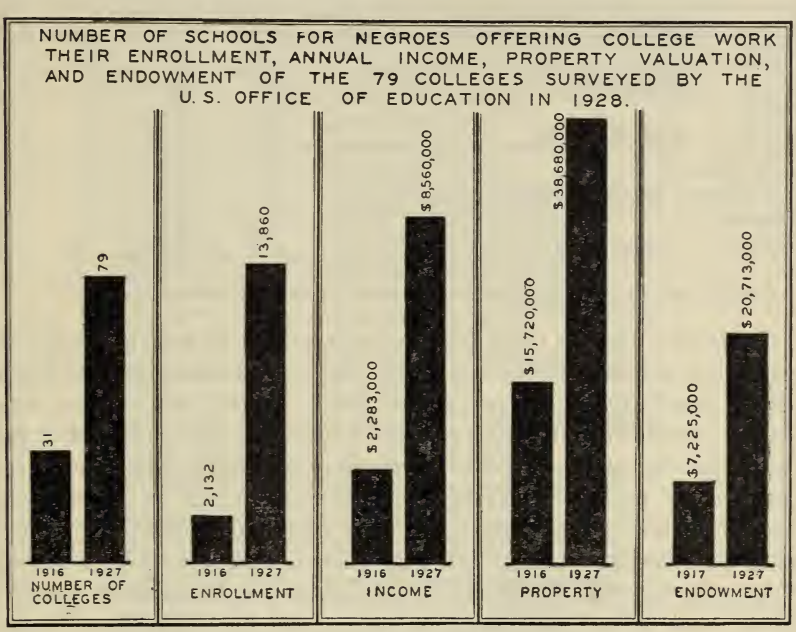


FIGURE 3

Another problem closely connected with that of short school terms, as has already been inferred, is poor attendance. Because of inaccessibility of schools, necessity for work, poor health conditions, and many other causes over some of which the student and his family have little control, we find the attendance record of Negro children to be very poor. Table 2 gives the school term and school attendance of white and colored pupils in 15 States for the year 1927–28. Figure 4 shows these same data graphically.

[4] Blose, David T. Statistics of the Negro Race, 1927–1928. Washington, Government Printing Office, 1930. (U. S. Office of Education. Pamphlet No. 14, 1930.)

TABLE 2.—*School term and school attendance of white and colored pupils in 15 States, 1927–28* [1]

State	Length of school term (days)		Average number of days attended by each pupil enrolled	
	In white schools	In colored schools	In white schools	In colored schools
Alabama	158	127	116	92
Arkansas	150	132	110	93
Delaware	185	184	161	145
District of Columbia	180	180	149	150
Florida	163	124	124	98
Georgia	154	137	119	100
Louisiana	173	114	139	85
Maryland	189	178	160	136
Mississippi	162	112	118	76
North Carolina	154	138	120	95
Oklahoma	150	142	101	86
South Carolina	172	116	129	83
Tennessee	167	149	117	108
Texas	157	130	131	106
Virginia	165	142	134	105

[1] Phillips, Frank M.: Statistics of State School Systems, 1927–28. U. S. Office of Education.

Students.—During the 9-year period between 1919–20 and 1927–28, according to reports received by the Office of Education, the Negro school population (5–17 years) increased 10.8 per cent and the total Negro enrollment in elementary and high schools increased 9 per cent. In the year 1927–28 [5] there were 2,201,221 Negro children enrolled in public elementary schools and 11,259 in private elementary schools, the larger proportion of the former being in rural schools. The figures for public high schools and private high schools were, respectively, 164,987 and 9,904. Tables 3 and 4 show the per cent of the total school enrollment in each grade in 17 Southern States. Observe that 96 per cent of the students are enrolled in grades 1 to 8; more than one-third in the first grade and 74 per cent below the fifth grade. These figures call attention to the problem of elimination, one of the most serious difficulties faced by schools for Negroes. Figure 5 is a graphic representation of the data given in Tables 3 and 4. Table 5 shows a comparison between the urban and rural high-school enrollment among Negroes. The relatively high record of Oklahoma is especially to be noted, as is also that of North Carolina and Texas.

[5] Ibid.

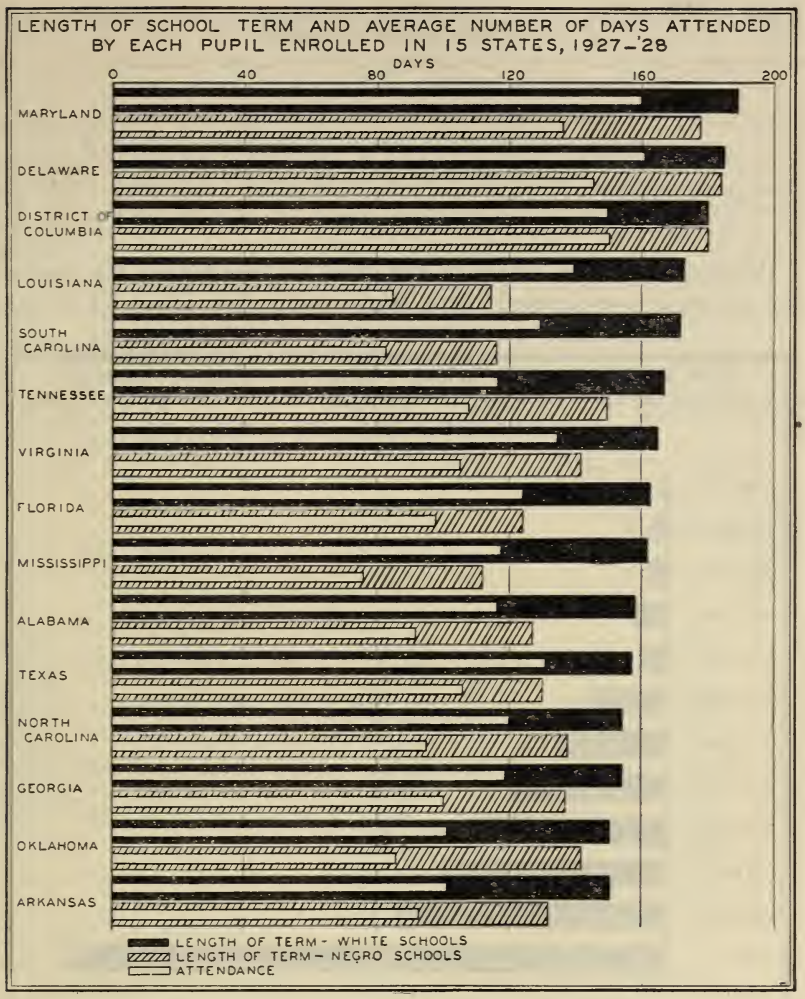


FIGURE 4

TABLE 3.—*Percentage of the total school enrollment in each elementary grade in 17 Southern States, 1927–28*

	Grade								Total
	1	2	3	4	5	6	7	8	
Country as a whole, per cent	19	11	10	10	9	9	8	6	84
Negro, per cent	35	15	13.2	11.7	9.1	6.5	4.3	1.5	96.3

TABLE 4.—*Percentage of the total school enrollment in each secondary grade in 17 Southern States, 1927–28*

	Grade or year				Total
	1	2	3	4	
Country as a whole, per cent	5.4	4.0	3.0	2.4	14.8
Negro, per cent	1.7	1.0	.6	.4	3.7

Because of the late entrance and early leaving before the close of the session it is estimated [6] that Negro pupils lose about 3.3 months

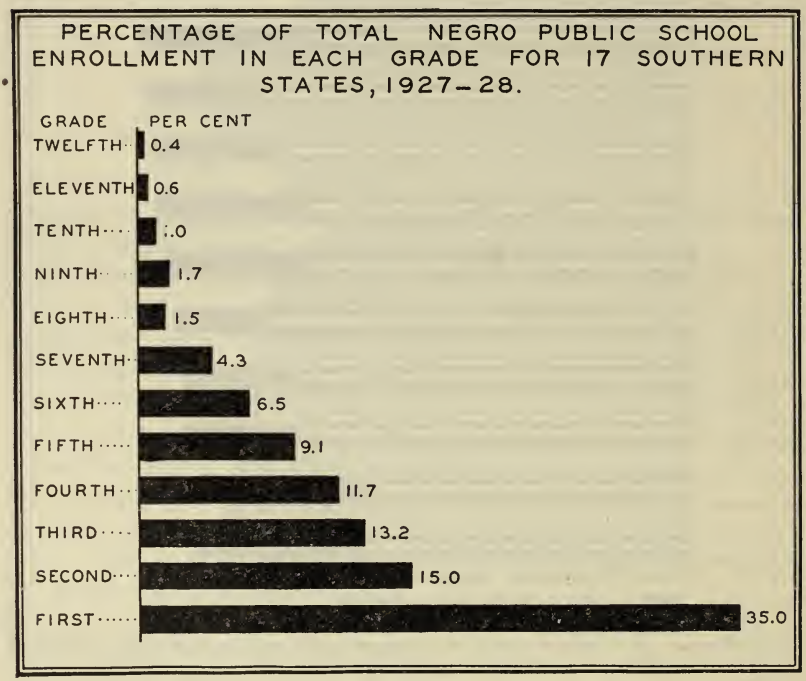


FIGURE 5

from a regular 8-month term. When this practice obtains and the school term is only 5 or 6 months, there is little wonder that we find the average retardation of 2 or 3 years shown by some students of the subject. D. H. Cooke [7] reports for North Carolina 68.1 per cent retardation for Negro children for the year 1927–28 as against

[6] Favrot, Leo M. Study of County Training Schools for Negroes in the South. J. F. Slater Fund, Charlottesville, Va., 1923. (Occasional Papers, No. 23.)

[7] Cooke, D. H. The White Superintendent and the Negro Schools in North Carolina. Contributions to Education, No. 73. George Peabody College for Teachers, Nashville, Tenn., 1930.

42 per cent for the whites. It should be noted here that North Carolina has been considered by many to be the most progressive State in the South in the education of Negroes.

Teachers.—"The development of the Negro race in the United States depends more directly on the elementary-school teachers than on any other group," said Thomas Jesse Jones in 1916 in his Survey of Negro Education.[8] In L. M. Favrot's Study of County Training Schools for Negroes in the South[9] it was found that "of 732 teachers reporting on the number of sessions taught in the schools in which they were then working, 311, or 42.5 per cent, were in these schools for the first time."

TABLE 5.—*Urban and rural Negro population (census 1920), Negro high-school enrollment, and number of Negro high-school pupils per thousand Negroes enrolled in high school in 14 States*[1]

State	Negro population		Negro high-school enrollment		Number of Negro high-school pupils enrolled per thousand population*
	Urban	Rural	Urban	Rural	
Alabama	196,833	703,819	3,489	2,792	6.9
Arkansas	73,592	398,628	1,696	670	5.0
Florida	120,596	208,891	1,655	67	5.2
Georgia	273,036	933,329	4,189	984	5.7
Kentucky	105,393	130,545	2,653	830	14.5
Louisiana	100,413	509,844	3,987	1,663	7.7
Maryland	124,509	119,970	2,529	849	13.8
Mississippi	98,626	836,558	1,661	1,875	7.1
North Carolina	155,165	608,242	8,470	5,860	18.7
Oklahoma	47,904	101,504	2,103	1,199	22.1
South Carolina	116,489	748,230	1,990	2,070	8.1
Tennessee	170,464	281,294	1,055	932	12.0
Texas	223,373	518,321	11,148	2,307	18.1
Virginia	209,134	480,883	4,913	1,995	10.0
Total	2,105,527	6,580,058	51,538	24,093	9.8

[1] Favrot, Leo M. Some Facts About Negro High Schools and Their Distribution and Development in Fourteen Southern States. Op. cit.

The number of pupils enrolled in the entire country for each teacher in 1927–28 was 30. For every Negro teacher, however, there was enrolled an average of 45 pupils. In one Southern State we find that white teachers have an average of 33 pupils, while Negro teachers have an average of 52.

Salaries of Negro teachers constitute, perhaps, the gravest element in the entire situation. Table 6 shows for 15 Southern States the average annual salary for all teachers and for Negro teachers. For one State the minimum monthly salary for Negroes was as low as $15 and the maximum only $225. The poor preparation of Negro

[8] Jones, Thomas Jesse. Survey of Negro Education. Washington, Government Printing Office, 1917. (U. S. Bureau of Education. Bulletin, 1916, Nos. 38–39.)

[9] Favrot, Leo M. Op. cit.

* Ratio between 1928 Negro high-school enrollment and 1920 Negro population.

teachers in many cases may be attributed to low salaries. Figure 6 presents graphically the salary situation for Negro teachers as compared with the average for the States as a whole.

TABLE 6.—*Average annual salary of teachers in 15 States, 1927–28* [1]

State	Average annual salary for State as a whole	Average annual salary for Negroes	State	Average annual salary for State as a whole	Average annual salary for Negroes
Alabama	$747	$345	Mississippi	$545	$386
Arkansas	680	412	North Carolina	838	487
Delaware	1,451	1,153	Oklahoma	963	[2] 827
Florida	906	415	South Carolina	769	302
Georgia	647	268	Tennessee	835	----------
Kentucky	851	----------	Texas	842	687
Louisiana	980	494	Virginia	822	472
Maryland	1,418	990			

[1] Blose, David T., op. cit. [2] 1925–26.

Another factor influencing the preparation of Negro teachers has been the lack of facilities for teacher training. Before the land-grant colleges were established dependence was placed almost wholly in the private colleges for the preparation of teachers, and more than 90 per cent of the county teachers received all of their training in the local county school until the establishment of the county training schools by the trustees of the Slater Fund.[10]

There are a great number of Negro teachers in the public schools who are poorly prepared, but the new State requirements, better supervision, increase in facilities for training, such as normal schools and summer schools, and the generosity of the educational foundations are all being embraced by the Negro teacher with appreciation and enthusiasm in an effort to better prepare himself. It is estimated that in 1926 there were 23,686 Negro teachers in summer schools. There were probably 30,000 Negro teachers enrolled in summer schools during the summer of 1930.

Support.—Inadequate financial support of schools is undoubtedly the most important element in the entire educational situation as it relates to Negroes and is the cause of the defects which are found in the educational facilities provided for the Negro. In reference to this lack of provision, Doctor Jones,[11] 15 years ago called attention to the poverty of the rural sections and the ineffectiveness of the systems of taxation as contributing to the South's low per capita expenditure for whites as compared with other parts of the country.

[10] Favrot, Leo M. Op. cit.
[11] Jones, Thomas Jesse. Op. cit.

"Nevertheless," he says, "the per capita expenditure for Negro schools, by whatever standard measured, is utterly inadequate."

While there is still a great divergence between the support of education for Negro and white children in States which maintain separate school systems, the condition is improving, being much more favorable both in absolute terms and in the ratio between the

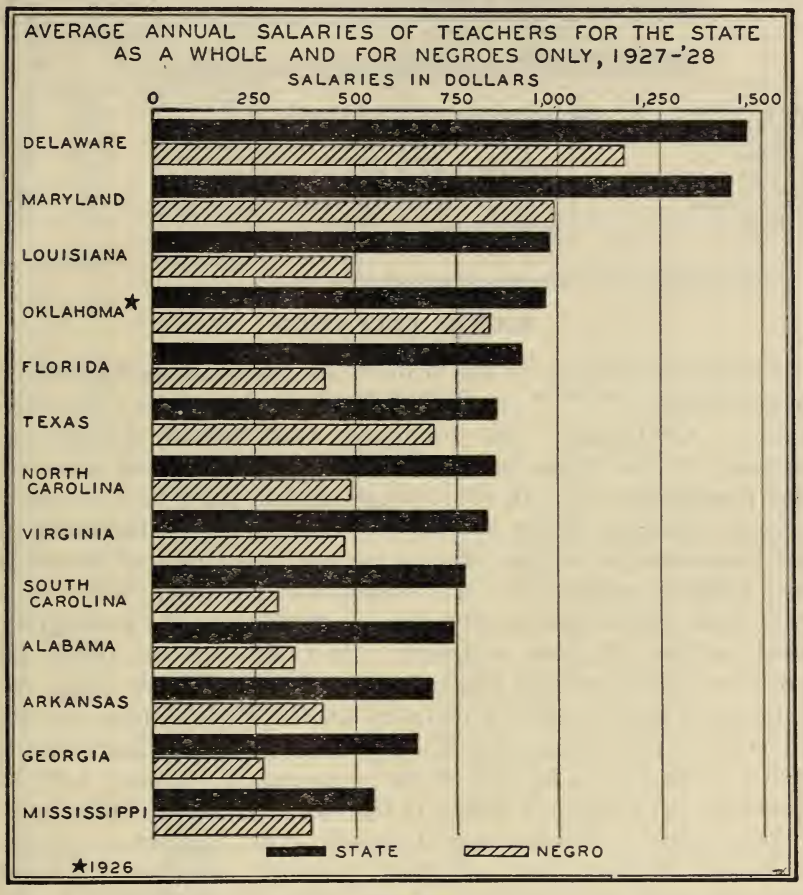


FIGURE 6

two groups. Table 7 and Figure 7 give a picture of the situation in 1928 with respect to the support of education for Negroes in 17 Southern States.

The activities of philanthropic foundations have done much to stimulate increased interest in this important question; and, as a direct result of their influence, not only has the support increased from public funds, but many of the white people of the South have

shown their desire and determination to remedy the conditions by making substantial private contributions.

TABLE 7.—*Proportions State educational funds devoted to Negro education compared with proportionate distribution of Negro educables in 17 States*[1]

State	Per cent of total population 6–13 that Negroes are—	Per cent of total expenditures for education of Negroes	State	Per cent of total population 6–13 that Negroes are—	Per cent of total expenditures for education of Negroes
South Carolina	54.9	10.66	Tennessee	22.9	11.93
Mississippi	53.0	10.51	Maryland	17.8	9.67
Georgia	43.5	13.33	Texas	16.2	12.00
Louisiana	39.3	9.98	Delaware	14.4	13.78
Alabama	38.9	8.40	Kentucky	8.2	8.02
Florida	36.9	7.91	Oklahoma	7.2	4.73
North Carolina	31.5	12.13	West Virginia	4.7	4.65
Virginia	31.3	11.09	Missouri	4.1	3.15
Arkansas	25.9	15.99			

[1] Johnson, Charles S. The Negro in American Civilization. Op. cit.

HIGHER EDUCATION

Land-grant colleges.—"The historic background of the Negro land-grant colleges * * * is far different from that of the white institutions. Confronted with prejudices that existed against the members of the Negro race, with their lack of material resources and possessions, and with the shortage of elementary and secondary schools to prepare Negro students for college entrance, formation of the institutions as colleges offering the land-grant type of education was seriously retarded."[12] In consequence, not until recent years were these schools able to shift their emphasis from the lower-grade work to that of college standards. And, although practically all are now degree-granting institutions, the proportion of college enrollment in some of them is still very small. These colleges can not function at their maximum efficiency until the public high schools relieve them of the burden of giving secondary training, both of academic and vocational nature to the Negro students of the South.

From 1916 to 1928 the annual income of the land-grant colleges increased 442 per cent, and their property valuation increased 323 per cent, as will be seen by referring to Table 8 and Figure 8. It will also be noted that the elementary enrollment decreased, while the high-school enrollment increased nearly 100 per cent, and the college enrollment rose from 12 to 3,691. During the past two years appropriations from the States and donations from foundations to these schools for current expenses and capital outlay

[12] United States. Office of Education. Negro Land-Grant Colleges. *In* Survey of Land-Grant Colleges and Universities. Part X, p. 837. Washington, Government Printing Office, 1930. (Bulletin, 1930, No. 9.)

have greatly surpassed those of any former period. An entire new plant has been completed for the Negro land-grant college of

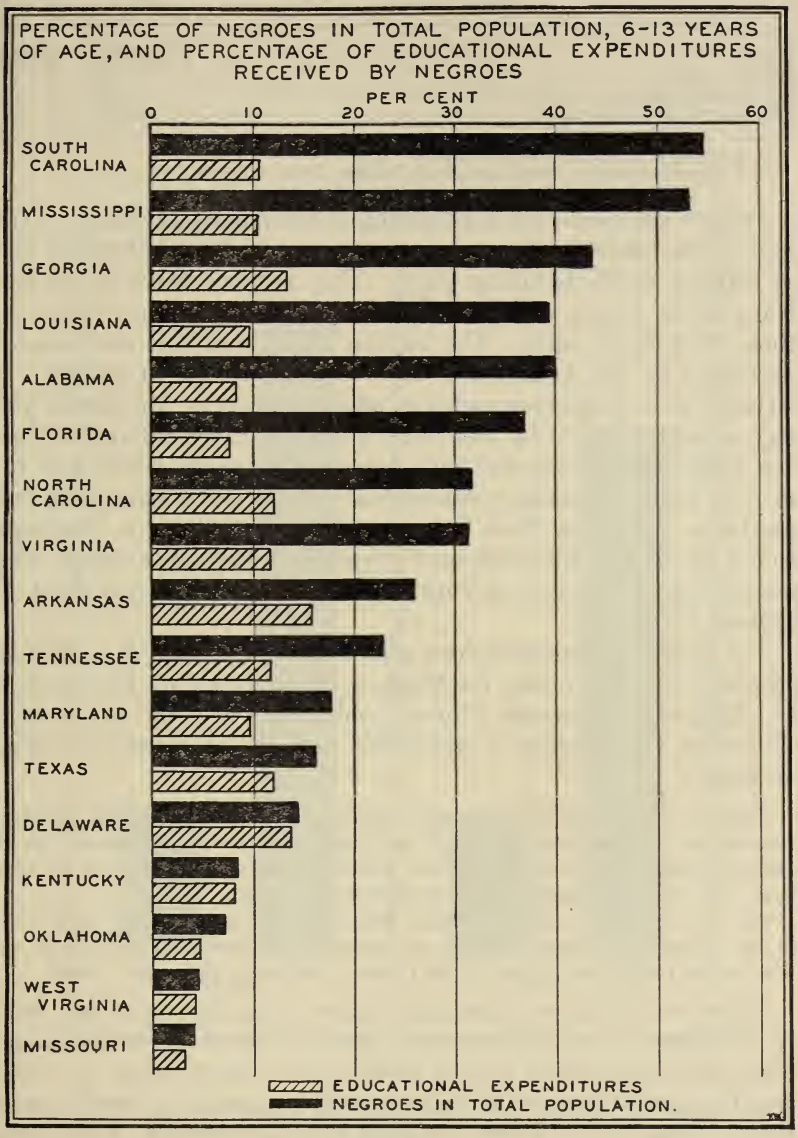


FIGURE 7

Arkansas, and several of the colleges have under construction or plans made to begin construction on additions to their plants ranging in values of several thousand to more than a million dollars.

TABLE 8.—*Comparison between 1916 and 1928 in property value, annual income, and enrollment in 16 Negro land-grant colleges*

	1916 [1]	1928 [2]
Property value	$2,576,142	$10,879,279
Annual income	$544,520	$2,776,769
College enrollment	12	3,691
High-school enrollment	2,268	4,124
Elementary-school enrollment	2,595	2,008

[1] U. S. Bureau of Education. Negro Education. Ibid.
[2] U. S. Office of Education. Negro Land-Grant Colleges. Ibid.

Private colleges.—An outstanding development affecting private higher education for Negroes is the merger or contemplated merger of colleges which is taking place. This advance move is not only being made among colleges of the same denomination, but among those of different sects. The leading example of this movement is furnished by the Atlanta and New Orleans groups of schools. In Atlanta an arrangement is being effected whereby Morehouse College, a Baptist school for men, and Spelman College, a Baptist school for women, will be merged with Atlanta University, which was formerly a Congregational, coeducational college, but is now doing only graduate work. In New Orleans, Straight College, a Congregational school, and New Orleans University, a Methodist college, have merged into an entirely new institution and will be named the J. H. Dillard University.

The following quotation from a letter from Dr. Merrill J. Holmes, secretary for institutions for Negroes, of the Board of Education of the Methodist Episcopal Church, under date of February 4, 1931, illustrates the manner in which the problem of mergers is being attacked:

> Plans are under way for combining the interests of the Methodist Episcopal Church in Alabama with those of the Colored Methodist Episcopal Church. Miles Memorial College of the Colored Methodist Episcopal Church at Birmingham, Ala., offers the basis for this projected cooperation.
>
> The two schools at Holly Springs, Miss., are engaged in close cooperation in the college field: Rust College, sponsored by the Board of Education, and Mississippi Industrial College of the Colored Methodist Episcopal Church.

Other consolidations have taken place and many more are being contemplated. It is believed that many of the religious denominations and independent church boards have finally come to realize that the best interest of their educational programs, as carried out by their colleges, can be realized only by eliminating much of the duplication and overlapping which has been prevalent in the past, and by confining themselves to certain spheres of action and influence.

It was with this latter thought in mind that the late Doctor Phenix, soon after he became president of Hampton Institute, initiated a

conference between the presidents of several of the larger colleges for Negroes for the purpose of discussing the feasibility of a program designed to eliminate the duplication of certain courses and departments, with special reference to graduate and undergraduate work.

Another very important happening in the field of private education for Negroes is the generous support which the Federal Govern-

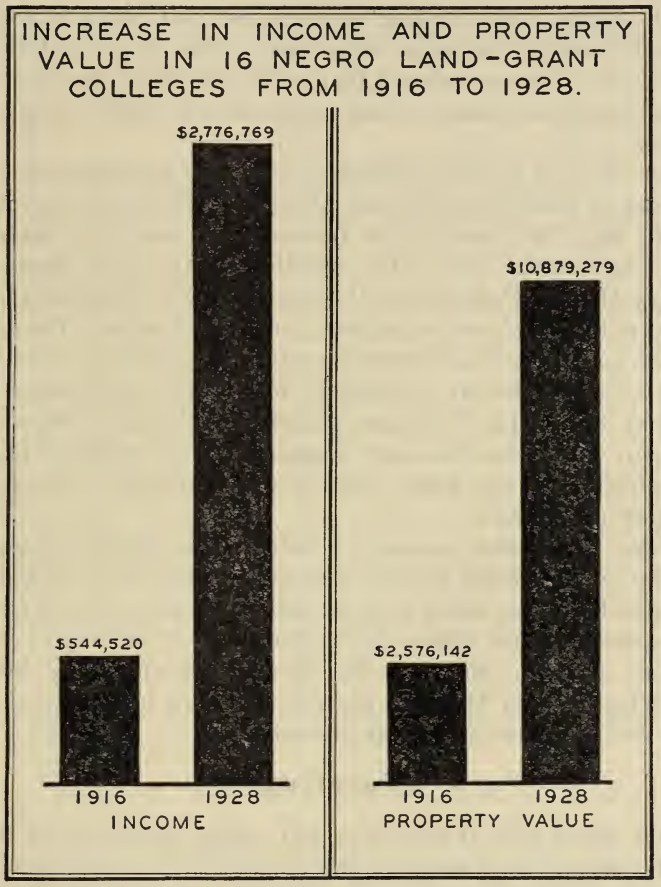


FIGURE 8

ment has given Howard University and its decision to make such support a matter of permanent policy. This assures the development of at least one school for Negroes of real university proportions.

Teacher training.—Another distinctive feature in the progress of higher education for Negroes is the growth, in very recent years, of publicly supported teacher-training institutions, both State and municipal. The junior colleges of Houston, Tex., and Little Rock, Ark.,

are examples of the latter, while in practically every State school for Negroes examples of the former may be found where great impetus is being given the teacher-training work. Special mention should be made of the Miner Teachers College in Washington, D. C., and the Stowe Teachers College in St. Louis, Mo. Both of these institutions have recently undergone reorganization and are prepared to offer a degree after the completion of a 4-year course. They are developing strong faculties, composed of men and women with the Ph. D. degree from leading universities, and many others with excellent training and wide experience. This is particularly noteworthy when it is remembered that only a few years ago dependence for the supply of Negro teachers was almost wholly upon private colleges.

Other items of special significance are: The development of graduate work at Fisk University and Atlanta University, and the completion of a $400,000 library at the former school and the planning of a similar one at the latter; the building of the new plant of the Meharry Medical College near the campus of Fisk University, which will permit of a closer cooperation and coordination; the development of a social science research center in Nashville, at Fisk University; the important campaigns for larger endowments being waged by schools like Talladega College and Wiley College. These and many other activities are eloquent in their evidence of a new awakening which has taken place in the whole field of the higher education of Negroes.

Another innovation worthy of note is the special arrangement whereby certain States pay the tuition and other fees of Negro students who find it necessary to go outside the State to pursue advanced courses which are not offered in the State schools for Negroes and are the same as those offered in the State university. The States of West Virginia and Missouri are the only two known to the office where such practice prevails at present.

ACCREDITMENT

In the whole field of secondary and higher education for Negroes perhaps nothing is of more far-reaching effect than the recent movement to accredit Negro institutions by the same standards as are applied to schools for whites.

Most of the Southern States accredit the secondary schools for Negroes within their territory, and many of them apply the same standards by which the schools for whites are measured. Many of these States accredit the professional education work done in the various colleges of the State. This is for the purpose of certification of teachers. North Carolina has not confined itself to accrediting

schools within its own borders but has upon invitation accredited several private colleges in other States.

Table 9 shows the number of high schools having a certain type of accreditment in various States. These data were furnished directly by the State departments of education. In cases where the status of a school was not made clear or where the data did not seem to be comparable such schools were listed in the column designated "uncertain."

TABLE 9.—*Accreditment of high schools for Negroes by States, 1930–31* [1]

State	Accredited						Unaccredited	Uncertain	Total
	Public				Private				
	4 years	3 years	2 years	1 year	4 years	3 years			
Alabama	6	2	6	5	5			23	47
Arizona	1								1
Arkansas	7				5		60		72
Delaware								5	5
District of Columbia	3						4	6	13
Florida	15				3		9	14	41
Georgia	14				14		21	77	126
Illinois	8		2					1	11
Indiana								8	8
Kansas								3	3
Kentucky	19				3		25	26	73
Louisiana	29	9			13	1		5	57
Maryland	1							30	31
Mississippi	16	7	16	4	11			8	62
Missouri	12	1			1		28		42
New Jersey								2	2
New Mexico								3	3
North Carolina								147	147
Ohio								5	5
Oklahoma	18						20	37	75
Pennsylvania								3	3
South Carolina								80	80
Tennessee								71	71
Texas	26	5			8		179		218
Virginia	18				9		57	2	86
West Virginia								33	33
Total	193	24	24	9	72	1	403	589	1,315

[1] These data were furnished by the State departments of education of the several States. Incomplete reports from some States and lack of comparability of rating standards render the table less valuable than it otherwise might have been. It should also be noted that some of the schools listed as doing high-school work in any given year may subsequently discontinue such work.

In the spring of 1930 the Council on Medical Education and Hospitals of the American Medical Association, on the basis of the findings of the Survey of Negro Colleges and Universities,[13] prepared a tentative list of colleges which were deemed worthy of approval and prepared to do two years of acceptable premedical college work. More recently the Southern Association of Colleges and Secondary Schools, through its committee on approval of Negro schools, secured an executive agent whose duty it is to study the colleges for Negroes and make recommendations for their accredit-

[13] Klein, A. J. Op. cit.

ment according to the regular standards of the association. On December 15, 1930, the first list of colleges, with their ratings, was announced. The work of studying the institutions is continuing and another list is to be announced in December, 1931.

This advance move will undoubtedly do much to stimulate the progressive school spirit among Negroes, and will lend a status to their educational work which could hardly be achieved otherwise.

RESEARCH AND PUBLICATIONS

Surveys.—Surveys of Negro education have concerned themselves with large groups of schools, schools within a State, special curriculum studies, or surveys of student personnel, as, for example, investigations concerning intelligence of students and background studies. The most important of the surveys which have been made are:

(1) Negro education: A Study of the Private and Higher Schools for Colored People in the United States.[14] This survey was made in 1916 by Dr. Thomas Jesse Jones.

(2) Survey of Negro Colleges and Universities,[15] which was made in 1928 by the Bureau of Education, at the instance of the Association of Colleges for Negro Youth and upon the invitation of the colleges surveyed.

(3) Negro Land-Grant Colleges.[16] This is a section of the larger survey of all land-grant colleges made in 1927–1930 by the Office of Education.

Two other surveys now being conducted by the Office of Education, and which promise to be of far-reaching importance, are the Survey of Secondary Education Among Negroes, which is a part of the National Survey of Secondary Education, and the Survey of the Education of Negro Teachers, which likewise is a part of the National Survey of Teacher-Education.

Another school survey is explained in the following paragraph of a letter from one of the officials of the Methodist Episcopal Church:

> The board of education of the Methodist Episcopal Church is conducting a survey of its general colleges under the direction of Prof. Floyd W. Reeves, of the University of Chicago. In connection with the extension of survey plans to the schools for Negro youth joint arrangements are being made by which the schools of the Colored Methodist Episcopal Church, as well as those of the Methodist Episcopal Church, will be included in the survey.

A study of the work of the American Missionary Association has just been completed by Dr. Frederick L. Brownlee, executive secre-

[14] Jones, Thomas Jesse. Op. cit.
[15] Klein, A. J. Op. cit.
[16] U. S. Office of Education. Op. cit.

tary of missions. This is a general survey and "summary of achievements and trends" over a period of 10 years.

The Office of Education has knowledge of special surveys or investigations which have been made recently as a part of state-wide surveys in Florida, Mississippi, Missouri, North Carolina, and Texas.

The many researches and studies in the education of Negroes which have been completed during the past two years or are in progress indicate the achievement that is being made along this line. More than 50 such studies have been reported to the office for the present biennium, and it is believed that there are many more which have not been reported.

NEW SERVICE IN THE EDUCATION OF NEGROES

A new section was established in the United States Office of Education in 1930 concerned with the education of Negroes. In general, the functions are: To furnish information concerning Negro education; to conduct, direct, and encourage educational research; to stimulate interest in the present status and future possibilities of Negro education; and to assist in coordinating the various researches, activities, and interests of Negro schools and of persons concerned in Negro education and related matters.

American Education Week program.—One of the early achievements of this new service was the arrangement of a radio program on the education of Negroes, which was broadcast over a national hook-up on November 12, 1930, during American Education Week. While the program itself attracted nation-wide attention, its greatest value was in the interest aroused and maintained among schools and their patrons in the educational problems confronting the Negro. Weeks prior to the program an educational campaign was conducted among the secondary schools and colleges for Negroes and in the press, with a view to stimulating interest and motivating a study of the problems. Letters and suggestions were sent to these schools throughout the country encouraging them to observe American Education Week with appropriate programs and activities.

The schools were requested to send information concerning their observance of this occasion. While all did not reply, some indication of the results may be gathered from the reports of those that did. Eighty-six schools and 25 colleges reported, with an enrollment of 30,435 and 3,680, respectively. These high schools also reported 3,749 elementary pupils who were brought within the influence of American Education Week observance. A total of 58 schools cooperated with other schools and community organizations during this occasion. Exhibits were held, programs for the community were

rendered by the school, plays staged, sermons preached, and talks given by teachers, community leaders, and students.

National Advisory Committee.—Another outcome of this new service in the Office of Education is the appointment by Secretary Wilbur of the National Advisory Committee on the Education of Negroes. The committee is composed of 24 men and women drawn from various sections of the United States, and representing various phases of education, such as elementary education, secondary education, and teacher preparation. The group includes classroom teachers as well as administrators, and each is an expert in his special field. It is a rotating group, certain members of which will serve only while the special projects in which they are interested are being considered, others being added as new projects are undertaken.

The general purpose of the committee is to cooperate with the Office of Education in its work concerned with the education of Negroes and give advice and counsel in connection with major problems and questions which will arise from time to time in connection with the national surveys being conducted by the Office of Education, as well as other general educational matters. The hope was also expressed at the time of their appointment that the members of this committee might serve as contact representatives in the various geographical centers in interpreting the needs of the race to the Office of Education and in turn the plans and program of the office to the race.

CHAPTER XVIII

RADIO AND EDUCATION

By Armstrong Perry

National Committee on Education by Radio

Contents.—Introduction—College and university education in broadcasting—Amateur radio work—Encouragement of amateur radio by Army and Navy—College and university broadcasting stations—Public school and broadcasting work—School broadcasting on national scale.

INTRODUCTION

The American boy, and in some cases his sister, was among the first to discover the possibilities of education by radio. As soon as the newspapers and magazines began to tell of the success of Marconi in sending radio messages from shore to ships and eventually across the Atlantic, boys began to build radio apparatus.

They found that it was not a very difficult matter to build a simple receiver or a transmitter and that the expense was not prohibitive. After receiving and transmitting their first dot and dash signals they were drawn on by the fascination of the game and increased the efficiency of their apparatus. In many cases the education obtained through this self-activity appeared to exceed the results obtained through formal courses of instruction given in the public schools. The boys learned much of physics, chemistry, geography, civics, and economics. Teachers observed this and usually encouraged their pupils in their radio studies and activities.

Between 1901, when Marconi first succeeded in sending signals across the Atlantic, and 1914, when the World War started, thousands of boys became so skilled in the use of radio as to be available for positions as operators. Many of them became operators on ships at ages as low as 16. In America they formed a national organization under the leadership of adult radio experimenters and learned that through cooperation they could relay messages from point to point over considerable distances.

The World War created a demand for radio operators which could not be met promptly by commercial or educational organizations. The American Radio Relay League, the amateur organization, was asked to help in this situation. Hundreds of its members

volunteered for service as operators as the war progressed and others served as instructors in military and naval camps and schools.

In 1915 a group of radio engineers succeeded in transmitting their voices across the Atlantic Ocean from Washington to Paris and also across the American Continent and the Pacific Ocean as far as Hawaii. They reported that the cost was prohibitive from the standpoint of public service, but their experiment gave great stimulus to experimentation in the field of radiotelephony.

Five years later a 15-year-old school boy, Harold Robinson, of Keyport, N. J., bought a radiotelephone transmitter guaranteed to transmit speech and music over a distance of 25 miles. Encouraged by his father, he made various changes in this apparatus, with the result that amateurs at greater and greater distances reported hearing his voice and the music which he transmitted. In the fall of 1920 he received a letter from a radio amateur in Scotland, reporting that he had heard the Robinson station and telling what he had heard. His report checked with the record of the station for that date and, although some doubt was cast on the record by commercial radio men who were trying to make a record for themselves, the evidence bears out the statements of Robinson and the young man on the other side of the ocean.

During the same year the first commercial radio stations which began regular broadcasting services were opened. One was WWJ in Detroit and another KDKA in Pittsburgh. The radio station of the University of Wisconsin was among the first to begin broadcasting. This university, like many others, had maintained for a number of years an experimental radio station which exchanged point-to-point messages with similar stations.

The development of broadcasting was extremely rapid. Within a few years it had helped the radio industry to become one of the largest in the world. The commercial development was, as usual, more rapid than that in the conservative atmosphere of the colleges and universities. Nevetheless, the engineering departments of the institutions of higher learning developed most of the outstanding radio engineers.

In 1922 Dr. John J. Tigert, then United States Commissioner of Education, reported that 60 educational institutions were broadcasting educational and musical programs and that 47 of these were colleges and universities. He stated that there were between 1,000,000 and 1,500,000 receivers in the United States, and from 3,000,000 to 4,000,000 radio listeners, for the most part of school and college age.

That the commissioner did not lose sight of the educational possibilities of radio is shown by an article that he prepared in March, 1924, which contained the following significant paragraphs:

The school, the library, and the newspaper are usually ranked as the three great educational agencies. The radio promises to take its place as the fourth, and it appears to be fast fulfilling that promise. * * *[1]

Even the details of his (the child's) instrument stimulate scientific inquiry, and every adjustment is an experiment in physics. The child who saves his pennies, buys materials from the 10-cent store, and constructs an instrument that will enable him to hear conversation a mile away has learned lessons in thrift, in handiwork, and in science that the best teachers in the land might well contemplate with envy. And what he receives through that instrument afterwards contributes to his appreciation of music, his acquaintance with literature, and his knowledge of world affairs in a way which effectively supplements the instruction which he receives in school, though it may be lacking in organization and sequence.

Even in its lightest aspect the radio is an educational influence of the first rank because of the extent of its use; but that is only a part of it. Educational institutions in constantly increasing numbers are using it effectively for formal instructional work. In some instances complete courses of lectures are offered by this means to students duly enrolled, and certificates are given to those who have listened to the entire series.

COLLEGE AND UNIVERSITY EDUCATION IN BROADCASTING

Colleges and universities continued to develop educational broadcasting. Apparently, the opportunity in this field was visualized fully by only a few college officials. In some cases the college broadcasting station was looked upon as the hobby of a professor of physics or engineering and he was permitted to carry most of the burden. The institutions gave rather meager support to their radio stations as compared with the enormous sums invested by commercial concerns. Educators who suggested that formal courses of instruction could be given by radio and that university credit might possibly be given to those who completed such courses and passed examinations were looked upon by some others as radical and unsound in their educational tendencies, but progressive individuals and organizations continued their studies and experiments.

AMATEUR RADIO WORK

Radio in all its branches developed so rapidly that within a comparatively short time it was found that there were not enough radio channels to accommodate all who wished to use them. At the lower end of the spectrum of frequencies were the long-wave stations which handled commercial and governmental radio messages transmitted in the International Morse Telegraph Code. Then came ship and shore stations which used somewhat higher frequencies. These increased by hundreds and thousands as radio demonstrated its power to increase safety of life and property at sea. Broadcast-

[1] Radio in Education. The Payne Fund, New York, 1929.

ing claimed a wide band of frequencies. Cities and States applied for radio channels for the use of police and fire departments. Provision was made for experimental services, such as relay and visual broadcasting and for geophysical work. Airplanes began using radio for communication with the world below. The radio amateurs were forced out of many radio channels which they had been using and, with a quiet smile on the part of professional radio men, were assigned to lower wave lengths which were believed to have no commercial value.

The self-educated radio boys soon demonstrated to the radio engineers that the field into which they had been herded was at least as valuable as any from which they had been driven. Approximately 20,000 stations, operated by boys from 15 to 20 years of age, were soon sending messages to all parts of the North American Continent and across the oceans to other lands.

The amateur operators worked on old problems and made new discoveries. Scores of them did such outstanding work that they were given positions with commercial radio companies without having to attend college to secure engineering education.

The pressure from commercial concerns needing radio channels continued to increase. Again the amateurs were driven from the channels which they had learned to look upon as their own into regions almost unexplored. Hardly had they begun work on the short-wave channels when reports began to circulate concerning communication over almost unbelievable distances. While commercial engineers were employing as much as 100 kilowatts of power to reach across the Atlantic reliably, their little brothers began to reach Australia, the most distant point on the surface of the globe from America, sometimes with as little as 7.5 watts, which is less power than is used by the average electric lamp by which this article may be read. Reaching Australia became quite a matter of course with many of the radio amateurs, and scores of them decorated the "radio shacks" in their attics with post cards confirming the reception of their messages in most of the civilized countries of the earth.

The growth of radio broadcasting distressed many of the amateur experimenters. The listening public was looked upon as an interloper in a domain which had been sacred to the boys who could "talk Morse." The signals from the amateur transmitters were heard in broadcast receivers and brought complaints. Many a careless listener who knew even less about the music which he heard than he did about the code signals, which interrupted it with whistles and buzzes, sought out and tried to eliminate boys who had interfered with his amusement by their serious experiments. Eventually the young experimenters won out by one means or another. They im-

proved their apparatus so that the interference was reduced and in many cases helped the broadcast listener to install inexpensive devices which improved his reception. Many an irate radio amusement seeker was chagrined when a boy of 15 or 16 proved beyond the shadow of a doubt that the interference complained of came from a ship or shore station operated by professionals and not from an amateur station.

A 15-year-old boy in Pawtucket, R. I., during his first year of experience as a radio amateur, secured employment as a salesman in the radio department of an eastern store. He asked permission to display a sign back of his counter which read "Radio messages accepted for any part of the world, free of charge." This sign was not taken seriously by the customers for several weeks, but one day he was approached by an anxious woman who stated that a friend in a Chinese mission field had been driven out by the war and could not be located. She knew that the missionary had started for the Philippines, but did not know whether she had been able to reach the protection of the American Government in those islands. The boy asked the woman to write a message and he sent it directly by radio to an amateur on the Pacific coast. This boy sent it to one in the Philippines. The boy in the Philippines located the missionary and forwarded her reply back to her friend in America inside of 10 days.

Some of the amateurs made a serious study of broadcast reception. One of them, a Rhode Island farm boy of 15, purchased a 2-tube receiver which, because of its supposedly poor design and results, had been taken off the market by the manufacturer only a year or two after it was offered to the public. With this receiver this boy in two years accumulated records of more than 700 broadcasting stations in 58 countries which he had heard with more or less regularity. These records included post cards and letters from broadcasting stations in Australia, Japan, and other countries at extreme distances, stating that what the boy said he had heard was actually what had been transmitted by these stations at the time shown in his record.

When these results were ascribed to "freak conditions" this boy referred an investigator to another boy living in Pennsylvania where conditions were radically different, who had a 3-year record of stations received on a 3-tube receiver which he built himself. He had heard practically every broadcasting station in the United States, even those of very low power, and about the same number of stations on the other continents.

Amateur radio, beginning as the pastime of a group of boys and girls, averaging about 20,000 per year, gradually became recognized

as worthy of a place protected by national and international law. From the time of our first national radio legislation certain radio channels were set aside for the exclusive use of amateurs. As the demand for channels increased numerous attempts were made to take all of the channels away from the amateurs and turn them over to governmental agencies or to commercial concerns. Only the fact that the amateurs had developed an organization strong enough to make their point of view known and respected saved them from losing their opportunity to experiment in this new and highly interesting field.

Another boy probably saved loss of life by stopping a railroad train which was about to leave from a western station. In this case a message was broadcasted in code by another amateur hundreds of miles away. It was heard by an amateur on the west coast, more than a thousand miles from the city from which the train was about to depart. The amateur on the Pacific coast transmitted it to the one in the city where the train was. The information was that the track ahead was blocked by a wreck and that the signaling system was out of commission.

The United States Government has taken a much more liberal attitude toward the amateurs than the governments of most other countries. Many governments look with disfavor upon any system of communication which can not be closely controlled. They seem to fear the consequencies of free communication of their citizens with the citizens of other countries. It required hard work on the part of the representatives of the United States Government in the International Radio Convention to preserve to amateurs the right to build and operate their apparatus.

Within the last few years the amateurs have developed a world-wide organization. The governments of the world are being led to see that the value of developing the radio amateurs more than offsets any danger that might arise from the fact that they are able to communicate with others in any part of the world.

Radio amateurs have done remarkable work in keeping in touch with explorers and scientific expeditions. One of them, a 15-year-old boy, kept the MacMillan expedition of 1925 in touch with the outside world for about three weeks while many professional radio men were trying, without success, to reach the expedition. During that period the National Geographic Society, which organized the expedition, sent and received all of its communications with the expedition through this boy's station, which he had built with his own hands. This was in the early days of short-wave transmission, and he demonstrated the efficiency of short waves by handling the bulk of the correspondence on a regular schedule beginning in the morning and ending in the afternoon. He thus

avoided one complaint which had been made against amateur radio, namely, that it kept boys up too late at night. A previous MacMillan expedition was out of touch with the rest of the world for several weeks until a boy in the State of Washington, using his mother's wire clothesline as an aerial, picked up the first communication received after this long period of silence. With an efficiency which could hardly have been exceeded by that of any professional operator, he wrote down scores of messages from members of the expedition to their families and friends. The terms of his license required him to discontinue operation at a certain hour. In order to avoid violation of the law, he was obliged to receive all of this traffic without breaking in to make corrections or ask for further information. He forwarded the urgent messages by telegraph to the persons addressed and completed his task with a thoroughness which won the commendation of all concerned.

The work of radio amateurs is one phase of education by radio—a phase which has been overlooked to too great an extent. When it is considered that a boy can build the apparatus for his radio station at an expense which may be kept within the limits of what he can earn in spare time, and that from his amateur station he can communicate with other boys in 50 or more other countries, educators will not be slow in seeing the educational possibilities in this pastime. Divided among a number of boys in high schools, where there is an interest in this activity, the expense has been very small. Through the activities of an amateur radio station in a school, the entire student body may be kept in intimate touch with affairs in every part of the globe. Interest in geography, history, government, economics, science, literature, and many other subjects in the curricula may be stimulated to a far greater extent than is possible usually where pupils are taught by teachers who have had no experience in the countries about which they teach. Set building has been encouraged in some schools, and in New Jersey in one year more than 4,000 radio receivers were built by school children, but the possibilities of radio as a part of manual training and science work in the schools have never been fully appreciated. Educators and the general public have given much more thought to the education which may come through listening to broadcast programs.

ENCOURAGEMENT OF AMATEUR RADIO BY ARMY AND NAVY

The officials of the United States Army and Navy recognized the possibilities of amateur radio long before many of the educators did. In fact, these officials have been so much more ready and willing to recognize the educational and civic value of amateur radio that, in this field, it is a question as to whether they are not

real educators. Neither the public schools nor the colleges and universities have developed any national system for the encouragement and utilization of amateur radio that is comparable to the systems developed by the Army and the Navy.

The Army for a number of years has had a national chain of stations in which qualified amateurs have a definite official part. Periods are assigned for practice in the handling of official messages. Even before the Army developed this system the Navy was encouraging the amateurs. From some of the key stations of the naval districts messages were transmitted at stated times for amateurs. Not only were these transmitted in the International Morse Code; they were also put into a special amateur code. Amateurs were invited to send for a key to the code employed, and by the aid of this key they could decipher the code messages. Amateur No. 1, so designated by the district communication superintendent, third naval district, received one of these code messages one evening without knowing what it contained. When he started to decode it with the aid of his key he discovered that it referred to him by name and to a report which he had made on a previous message. The educational effect of such an experience can hardly be overestimated. The Navy has continued and developed its work for amateurs, and at present has a network covering the country. Amateurs in the Army chain and the Navy net have been called on a number of times to serve in grave emergencies. One of them maintained communication between an Army post and the outside world during a Florida storm and was able to relieve the anxiety of the War Department concerning several aviators who had hopped off just before the storm and who it was feared might have been lost. Another, also in Florida, connected the inhabitants of a wide region devastated by a hurricane with the Red Cross and other agencies which would not have known what relief was needed, or where it was needed, if it had not been for the work of this boy.

COLLEGE AND UNIVERSITY BROADCASTING STATIONS

Among the earliest broadcasting stations were a number operated by colleges and universities. Some of them grew out of experimental stations used for sending code messages, and the technical attitude of the experimenters entered into their operation. However, when the public began to listen to radio programs the college broadcasters quite logically began to put on the air programs of an educational nature.

The State universities of Wisconsin, Iowa, and Nebraska operated broadcasting stations in 1921 and 1922, and the University of the State of New York developed plans for broadcasting lectures which

were to be received through loud-speakers in various classrooms. Grove City College, Pennsylvania, was one of the first to organize and carry out a broadcast program. This was six months before the first commercial broadcasting stations began regular service. Tufts College inaugurated courses of instruction. The opening lecture was given by Dean Charles Ernest Fay, Wade professor of modern languages. Modern language instruction has been conducted successfully by means of radio since that time.

Charles G. Maphis, in Bulletin, 1923, No. 24, United States Bureau of Education, discussed radio education in connection with extension work. He mentioned radio extension courses at the University of Michigan and Michigan Agricultural College. He stated that in November, 1922, 57 colleges and universities in the United States were reported as having telephone broadcasting stations. Among these were University of Colorado, University of Arizona, University of California, Tulane University, University of Missouri, Purdue University, University of Vermont, University of Texas, Cornell University, University of South Dakota, Ohio State University, University of Nebraska, University of Wisconsin, State University of Iowa, University of Cincinnati, West Virginia University, Iowa State College, and the University of Illinois. The United States Bureau of Education (now Office of Education) was sending out messages twice a week from the Arlington Station of the United States Navy. A National Radio Chamber of Commerce had been organized and was developing a plan to establish radio extension courses in American colleges and universities. Bulletin, 1926, No. 5, United States Bureau of Education, by Thomas H. Shelby, told of extension work conducted by means of radio in 10 universities and in the Massachusetts Department of Education. Bulletin, 1930, No. 10, United States Office of Education, by L. R. Alderman, stated that 45 institutions of higher learning in the United States offered extension courses by means of the radio during the years 1928 and 1929.

The Massachusetts Department of Education, Division of University Extension, was the first organization to give genuine educational courses by radio, according to a statement by its director, Dr. James A. Moyer. He reported that in the four years following September, 1923, 21 courses of eight lessons each were given by special lectures and college professors from a commercial station. These courses were supported by the radio audience. The expenses incurred by the department were covered by enrollment fees. Lecturers were paid for their services. The radio instruction was supplemented by a suitable syllabus for each student, and arrangements were made for reports on home study and for examinations to de-

termine each student's qualification for a certificate. In four years 4,530 persons enrolled in 21 courses. These students were in 34 States and 6 Canadian Provinces, and at least 5 were in England and Scotland. Among the courses were: Household management, radio reception for amateurs, appreciation of music, contemporary American literature, short-story writing, French, chief English writers of our day, business psychology, backgrounds of English literature, psychology, literary values in new books, journalism, economics, drama, and law.

Dr. Levering Tyson, of the home-study department of Columbia University, saw the opportunity presented by radio broadcasting. New York City broadcasting stations invited him to arrange for lectures by members of the university faculty. A telephone and telegraph company proposed, as a part of its general experimentation with broadcasting, that the university cooperate in an attempt to find out what might be the future of broadcasting series of education programs. The first course attempted dealt with the poetry of Robert Browning. It was well received and was followed by courses in American Government, psychology, Biblical literature, politics, child training, character building, French, English fiction, American history, and astronomy. During the academic year 1925–26, 137 lectures were broadcast under Columbia University auspices. The experiment extended through 1927, approximately four years. In addition, the university made available events on the programs of the Institute of Arts and Sciences, chapel services, glee-club concerts, undergraduates' dramatic performances, football games, and opening and commencement exercises.

The cooperation between college broadcasting stations and governmental agencies is illustrated by the broadcasting of reports of the United States Weather Bureau by St. Louis University, beginning April 26, 1921.

The cooperation of commercial broadcasting stations with governmental agencies is shown by the fact that educational and informational programs prepared by the United States Department of Agriculture are broadcast daily by a large proportion of such stations and reach millions of listeners.

Instruction by radio was attempted in the public schools as well as with the general public. Haaren High School, in New York City, appears to have the honor of being the first public school to give instruction by radio. Lessons in accounting were broadcast in 1923 and were received through loud-speakers in classrooms. Talks were recorded in shorthand by pupils. Problems were given, and adding machines were used in solving them. By 1924 such a volume of experience with radio had been accumulated by the Board

of Education of New York City that a pamphlet of 254 pages was required to make the reports available to educators and the public.

PUBLIC SCHOOL AND BROADCASTING WORK

Atlantic City erected its municipal broadcasting station in a high-school building. The faculty broadcast school news and the school musical organizations provided programs. At the Seneca Vocational School in Buffalo instruction in radio was developed further probably than in any other public school in the country. The radio pupils started by building radio receivers and were taught to test and repair any kind of receiver. They built with their own hands a radio station from which programs by pupils from many of the city schools are broadcast.

Mrs. Grace C. Stanley, commissioner of elementary schools in California, broadcast talks on California geography and history for the schools of the State in 1923. They were so popular that, coming at the beginning of the school day, they reduced the percentage of tardiness in the schools equipped with radio.

One of the earliest and most thorough studies made in education by radio was inaugurated in the Oakland, Calif., public schools in the spring of 1924. It was officially under the supervision of the school administration, and Dr. Virgil E. Dickson was in charge. The subjects and themes tried included physical training, penmanship, arithmetic, history, literature, geography, English, and the counseling of classes going into high school. Each lesson lasted 20 minutes. Four or five minutes of music preceded the talk, so that the receiving sets at the schools might be properly tuned. A member of the committee in charge of the experiment was stationed at each classroom receiving the lesson to make careful observations and accurate reports. After each lesson the committee met, compared notes, and made plans for the improvement of the next lesson. The results of the experiments were so satisfactory that 56 lessons were presented during 1924 and 1925, and the work was continued for several years.

Radio station WLS, owned by the Sears-Roebuck Agricultural Foundation, organized the "Little Red School House" in 1924. This was a weekly radio program arranged for the schools of Cook County, Ill. Talks were given on corn, dairying, birds, automobiles, the achievements of boys and girls, and other subjects. Music was furnished by groups of pupils from the schools. Papers were prepared and read by pupils as well as by adults. Various methods were used by the schools in securing radio receivers. In one suburb a parent-teacher association equipped each school.

Kansas State Agricultural College station, KSAC, opened a college of the air, October 5, 1925, with courses in psychology, English,

sociology, community organization, English literature, economics, journalism, and vocational education. The radio lectures were supplemented by home study, and examinations were taken by students under the direction of county superintendents. Credits were given, and it was possible for a student to earn a year's college credit by taking courses in radio. Inspirational educational programs for rural schools were broadcast also. These consisted of opening exercises, music lessons, and talks on birds, travel, biography, books, current events, poultry, crops, dairying, and horticulture. Classes in calisthenics were directed by radio. High-school credit courses were broadcast and there was a lecture course on football.

Miss Alice Keith, of the Cleveland, Ohio, public schools, organized what are believed to have been the first courses in music appreciation given by radio. They commenced in 1925. The music for upper grades and high schools was provided by the Cleveland Symphony Orchestra, and other music programs were presented for primary and intermediate grades. At that time Miss Keith prepared what was probably the first textbook written especially for use with a course conducted by means of radio. The attendance at the children's concerts given by the Cleveland Symphony Orchestra was doubled as a result of the radio course. The cooperation of the newspapers in giving publicity to the courses was an important factor in their success.

Atlanta started a public school of the air in 1926. Radio receivers donated by a local distributor were installed in all the schools in the city and were used for specified grades in the auditoriums and classrooms every day of the week. Each school reserved 30-minute periods for the radio lessons. Programs were prepared by an executive committee, composed of the city superintendent, supervisiors, principals, and teachers. Talks were given for the parent-teacher associations and for parents and children in the home.

A. B. Hill, State superintendent of schools for Arkansas, discovered that he could reach all of the 112 Smith-Hughes centers of the State at one time by using a commercial radio station. This was more than he could visit in three months by automobile.

In 1927 Stewart Bryon Atkinson, principal of the Upton (Mass.) High School, prepared a thesis on "Radio in Secondary Education," which showed that 57 of the 253 Massachusetts high schools were equipped with radio receivers. In 29 of these the receivers had been made in the schools and instruction in set making was given in 53 schools. He reported that high schools in Moberly, Miss.; Boise, Idaho; Spokane, Wash.; Toledo, Ohio; and Omaha, Nebr., had broadcasting stations.

The Connecticut State Board of Education opened a course in music appreciation in September, 1926, the lessons being broadcast from a commercial station. N. S. Light, director of rural education, was in charge, and a committee of 12 outstanding educators supervised the course. Dana S. Merriman, of Hartford, was the instructor. Lessons leaflets were distributed and preliminary work was done with much thoroughness. The audience for the first lesson was estimated as over 100,000, and Mr. Light believes that the regular audience averaged at least 25,000. In some schools the lessons were received by groups of 600 to 800 pupils, and in one town every school except one received at least the first lesson. The following school year talks were substituted for musical programs, and, although they attracted a considerable audience, it appeared to be much smaller than that which received the course in music appreciation.

SCHOOL BROADCASTING ON NATIONAL SCALE

Then came school broadcasting on a national scale. The Radio Corporation of America engaged Walter Damrosch, known throughout the world as the director of the New York Symphony Orchestra, to give a series of lessons in music appreciation for the schools of the country, in connection with concerts by his famous orchestra. The effort was a success from the start, and the audience has increased steadily. While it is impossible to ascertain how many persons actually listen to a broadcast program, it is believed that from 2,000,000 to 5,000,000 pupils receive the instruction from Doctor Damrosch at every lesson. Doctor Damrosch has prepared a helpful Instructor's Manual which is used in connection with the broadcasts.

The Columbia Broadcasting System inaugurated the American School of the Air, which gave a half-hour period of instruction two days a week the first year and a half hour every school day in 1930–31. Its programs include historical drama, nature study, vocational guidance, and a wide range of other topics which fit into the curricula of the public schools. Handbooks are issued at the beginning of the school year, and new editions are published as needed. Reports indicate that the school audience numbers millions.

Broadcasting for schools developed in England, Germany, and other foreign countries at the same time that it was developing in the United States. Most of them developed plans for radio broadcasting which prevented a multiplicity of stations with consequent interference. England's school broadcasting was started experimentally in 1923 and has been developed systematically from year to year. The Danish programs are said to be at least equal to those in any other country. Germany, too, has an excellent system. Reports from

45 countries, collected by the United States Department of State, are included in the Report of the Advisory Committee on Education by Radio appointed by the Secretary of the Interior.

The Ohio School of the Air is the most extensive and thorough effort made by a State department of education in this country to supplement the work of the public schools with radio instruction. The inception and success of this effort is due largely to the work of Dr. J. L. Clifton, director of education, and Mr. B. H. Darrow, director of the school. Funds were secured from private sources at the beginning because the use of radio in schools was too new to be understood by legislators or taxpayers. However, it was only four months after the first program was broadcast that the State legislature appropriated $40,000 to continue the school of the air for two years. At the expiration of the two years an appropriation was made for two more years.

The Ohio School of the Air programs are broadcast one hour each school day. They cover many subjects in the curricula of the grades and the high schools. The instructors are selected for their special ability in teaching by radio. In addition to courses in geography, rhythmic exercises, French, and other subjects, there are special programs. For example, the inaugurations of governors and certain sessions of the State senate and house of representatives are featured. Once a week during the last half of the school year in 1930–31, programs originating in Washington, D. C., were broadcast. Members of the Cabinet and other prominent Federal officials told of the work of their departments of the Federal Government, and a number of authors discussed literature.

The records of the school show that the programs are heard in 29 States. The coverage obtained is due to the courtesy of the Crosley Radio Corporation in granting the free use of its powerful station, WLW, located in Cincinnati. Ohio State University grants the use of its broadcasting studio, so that programs originating in Columbus may be broadcast.

Reports from all parts of Ohio show how the programs of the Ohio School of the Air affect the individual schools. Rural teachers are able to obtain the assistance of the best teachers in the State through radio. When they prepare the pupils for the radio lessons in advance the interest of the classes usually is keen, and it leads to profitable discussions of the radio lesson at the end of the session. Also the teacher in the school learns from the radio teacher methods which she can employ profitably. The radio receiver brings music to schools which otherwise would have none. It places the pupils and the teachers in direct contact with the leaders in many fields of thought. Some of the comments made by teachers, principals, and superintendents are as follows:

"The school of the air is extremely popular with all of our teachers and pupils and has attracted a great deal of favorable comment throughout Dayton. At first we listened in only a few schools, but considered its value so great that every school in Dayton will soon be equipped and more than 30,000 boys and girls will be listening regularly. We shall be delighted to help in any way possible." (Paul Stetson, superintendent, Dayton, Ohio.)

"* * * The pupils of the various grades have enjoyed every minute of the broadcast and we have had a favorable reaction from the community." (George N. Thurston, superintendent, Kilbourne, Ohio.)

"We have been receiving the school of the air from the opening day. Some changes in school schedules were necessary and I believe the sacrifice made will be warranted. We are finding the people in the grades more enthusiastic than the high school, yet you are giving to high-school pupils an exceptional program." * * * (E. W. Brumbaugh, principal, Troy, Ohio.)

"I consider the school of the air a great thing for the United States."

"I find that the boys and girls of my room thoroughly enjoy the programs they are hearing from the school of the air and I am sure if they were permitted to hear the programs every day that they would derive many educational benefits from them."

"They give you an idea of what is going on in the State and even in other schools."

"These programs are very interesting and give the student a change from the routine of work. They also give him the views of different men."

An effort has been made to secure from the Federal Radio Commission permission to make the more important programs of the Ohio School of the Air available to schools throughout the country by means of relay broadcasting. It is possible, by using short waves, to send a program from central stations to broadcasting stations throughout the United States with sufficient signal strength so that they can be relayed to local or regional audiences. The commission has declined to grant the privilege of using the short waves for this purpose. Its contention is that the proposed use of these waves might interfere with broadcasting in foreign countries and with programs broadcast from commercial stations in the United States to foreign countries. Chain broadcasting in this country is dependent, therefore, on the use of telephone wires at charges for circuits used in broadcasting which are considered prohibitive by most educators.

By 1929 educators throughout the country became aware of the possibility of a commercial monopoly of radio broadcasting in the United States. The executive committee of the Department of Superintendence of the National Education Association requested the Secretary of the Interior to call a conference for the discussion of education by radio. The conference met in Washington on May 24, 1929. It recommended that the Secretary of the Interior institute a national survey. He appointed the National Advisory Committee on Education by Radio, which made the proposed survey and sub-

mitted a report on December 30, 1929. This committee made recommendations as follows:

1. That there be established in the Office of Education, Department of the Interior, a section devoted to education by radio, and charged with such responsibilities as the following: (*a*) To receive from the Advisory Committee on Education by Radio its files and collected documents, to keep this material up to date and available for reference by the many students of the subject; (*b*) to organize some of the material into bulletins to be issued as demand warrants; (*c*) to outline techniques for research and carry on investigations into the best methods of broadcasting and compare the results of lessons sent to schools by radio with the results obtained by other means; (*d*) to keep the educational interests of the country fully posted on and alive to the importance of this new instrument as an educational tool; (*e*) to attempt to prevent conflicts and duplication of effort between various broadcasting interests; (*f*) to furnish advice on the educational soundness of programs suggested and to supply typical programs upon the request of any station whether educational or commercial.

2. That the funds necessary for financing such a section in the Office of Education be provided in the regular budget for the Department of the Interior.

3. That there be set up in connection with this unit an advisory committee representing educational institutions, commercial broadcasters, and the general public. This committee should consist of 9 to 15 persons whose residence is such that they can meet from time to time for actual consideration of problems arising in the Office of Education. This committee may well administer any funds remaining in our budget to promote research into the techniques of radio education.

4. That an effort be made to secure from interested persons or foundations an amount of money sufficient to bring to the microphone, for a period of two to three years, a high-grade program in certain formal school subjects and to check carefully the results obtained. The committee believes that as much as $200,000 per year for a period of three years may be wisely expended in this manner, under direction of a nonpartisan committee of educators and laymen.

5. That the Secretary bring to the attention of the Federal Radio Commission the importance of the educational interests in broadcasting and that he keep the President of the United States informed of the desirability of having on this commission spokesmen for programs which will tend to improve the general well-being of the American people.

The immediate establishment of a radio section in the Office of Education was made possible by a grant from the Payne Fund sufficient to cover the expense until the next annual appropriation for the Department of the Interior was made by Congress. This appropriation became available July 1, 1931.

Continued commercial encroachment on the radio privileges of the few stations owned and operated by States, schools, colleges, universities, or State agencies indicated that all educational stations might be driven from the air unless educators organized to secure protection through legislation. A number of land-grant institutions which owned and operated broadcasting stations requested the United States Commissioner of Education to call a conference for the discussion of this problem. The conference was held in Chicago,

October 13, 1930, and after thorough discussion of the situation passed the following resolutions:

The Conference on Radio and Education, meeting in Chicago, Monday, October 13, 1930, recommends that the Congress of the United States enact legislation which will permanently and exclusively assign to educational institutions and Government educational agencies a minimum of 15 per cent of all radio broadcasting channels which are or may become available to the United States.

The conference believes that these channels should be so chosen as to provide satisfactory educational service to the general public.

Resolved, That the meeting recommend the immediate organization of a committee, the members of which shall be duly accredited representatives of the Association of College and University Broadcasting Stations, the Land-Grant College Association, the National University Extension Association, the National Association of State University Presidents, the National Education Association, the National Catholic Education Association, the Jesuit Education Association, the National Advisory Council on Radio in Education, the Payne Fund, and other similar groups, for the purpose of formulating definite plans and recommendations for protecting and promoting broadcasting originating in educational institutions, and broadcasting by educational institutions, and for presenting the same, when advisable, to appropriate authorities and interested parties, and that the Federal Office of Education be given the responsibility for notifying the aforementioned groups of the deliberations and debate at Chicago on October 13, 1930, and for calling an organization meeting of this committee at the earliest possible moment.

The Commissioner of Education appointed the committee but declined to serve on it because education bills introduced in Congress are sometimes submitted to him, and, therefore, he is not in a position to serve on a committee seeking legislation.

The committee met for organization on December 30, 1930. National headquarters were opened in the offices of the National Education Association in Washington, February 1, 1931. A service bureau was opened in the National Press Building, near the headquarters of the Federal Radio Commission, for assistance to educational stations in their dealings with the commission.

During the first month in which the service bureau was open, applications made to the Federal Radio Commission by commercial stations affected in one way or another 28 of the 58 educational stations in operation at that time. The bureau received numerous requests for assistance and helped the educational stations in various ways in connection with their applications and hearings. It also assisted commercial stations, on the request of educational institutions which broadcast or which planned to broadcast through such stations.

The committee, in accordance with the resolutions of the Chicago conference, discussed the situation with Senator Fess of Ohio, and he introduced in the United States Senate a bill reserving 15 per cent of radio broadcasting facilities to "educational agencies of the Fed-

eral or State Governments and educational institutions chartered by the United States or by the respective States or Territories."

The bill was referred to the Senate Committee on Interstate Commerce, and no further action was taken on it in the limited time remaining before the end of the short session.

The right of States to own or operate broadcasting stations is challenged by the commercial radio interests, whose attorneys oppose State-owned stations in hearings before the Federal Radio Commission and argue that such stations should be limited or suppressed.

The right of the States to use radio channels for police purposes has been established. The demand for radio channels for commercial use was so great that for a time it looked as though even this fundamental right of States might be denied, but the action of the governor and other State officials in Michigan has established a precedent.

Presumably the educational forces of the country, having a representative National Committee on Education by Radio and adequate financial support, will continue their effort to secure for education a protected place in the air where it can be administered by the same officials who have been chosen by the people to administer the public schools, colleges, and universities, and the private educational institutions which have been chartered by the States. They rely on the attitude of Hon. Herbert Hoover, now President of the United States, who stated, while serving as Secretary of Commerce:

> The question of monopoly in radio communication must be squarely met. It is inconceivable that the American people will allow this new-born system of communication to fall exclusively into the power of any individual, group, or combination.

Among the outstanding experiments, studies, and researches in the field of education by radio, now in progress or recently completed, are the following:

The American Association for Adult Education conducted a survey in 1929 and published a report in 1930. Dr. Levering Tyson was in charge of the survey. He reported the results in a pamphlet entitled "Education Tunes In." A copy of this report may be obtained from the American Association for Adult Education, 60 East Forty-second Street, New York City. After the survey was finished the National Advisory Council on Radio in Education was organized, with Doctor Tyson as its director. Its purposes, as stated in its constitution, are as follows:

> * * * to further the development of the art of radio broadcasting in American education. It shall undertake to do this by close study and analysis of the problems faced by those in the educational world or in the broadcasting industry, or elsewhere, who are engaged in or are sympathetic to educational broadcasting. The council shall undertake to assemble and interpret the content of broadcast programs and information concerning the practices and experience of broadcasting stations in developing educational features as a part

of such programs; shall stimulate and suggest problems and projects for research or experiment with a view to increasing the effectiveness of broadcasting in education; shall present to the educational world from time to time, by conference, by publication, or by any approved method, the opportunities for education in the utilization of broadcasting, as such opportunities are discovered; shall request the cooperation of the broadcasting industry where that seems desirable, in making its facilities available to the cause of education as a public obligation; and finally, shall mobilize the best educational thought of the country to devise, develop, and sponsor suitable programs to be brought into fruitful contact with the most appropriate facilities in order that eventually the council may be recognized as the mouthpiece of American education in respect to educational broadcasting.

The council shall undertake to accomplish its object by organizing, maintaining, and developing a central office with branches as may be found necessary, as a clearing house for information on broadcasting as it affects educational processes; by including in its membership men and women interested in and sympathetic to educational broadcasting from government, from the educational world, from the broadcasting industry, and from the public at large; by forming committees or institutes whose function will be to study and further one or more phases or subjects in the educational broadcasting field; by developing regional organizations in various parts of the country which, each in its allotted broadcasting territory, will perform for that region the same functions which the council itself will perform for the country as a whole; by studying and reporting upon the achievement of educational broadcasting in foreign countries and cooperating with similar agencies abroad; by making reports to the council membership, to the broadcasting industry, to the educational world, to government, and to the public of significant progress or development in the subject of educational broadcasting; by publishing books, maintaining a periodical, or a series of publications, or all of these, to contain such reports; by cooperating with existing educational brodcasting, governmental or other organizations seriously concerned with increasing the effectiveness of broadcasting, or other media, in education; by striving within the council's province to raise the general level of broadcast programs in the country; and by serving in such other ways as may be deemed advisable.

Teachers College, Columbia University, began an investigation of the use of radio in rural schools in 1929 under the direction of Margaret Harrison, special investigator in radio education. The cooperation of many rural schools equipped with radio was secured. Each week Miss Harrison selected from the programs of broadcasting stations such features as seemed adaptable to use in school. Lists of these features were mailed weekly to the cooperating schools. The teachers selected such programs as they wished to use. The children were prepared for the programs and listened under the supervision of classroom teachers. Results were reported to Miss Harrison. The preliminary report for 1929 and 1930 can be obtained from the Radio Research Bureau, Teachers College, Columbia University, New York City, for 50 cents.

Dr. E. C. Blom, director of research, Louisville Public Schools, Louisville, Ky., has conducted experiments in the preparation and broadcasting of programs by public-school pupils. The report of

these programs may be obtained from the Louisville Board of Education.

The State Department of Public Instruction of North Carolina has developed plans for a school of the air with programs broadcast for the schools of the State.

The University of Florida, through its broadcast station WRUF, in cooperation with the State department of public instruction, conducts a school of the air, one feature of which is an extensive course in music appreciation. A manual of 143 pages has been published. This course is based on phonograph records and illustrates how an acceptable course may be conducted by radio at an expense which is small as compared with the expense of studio programs.

The State Department of Public Instruction of South Dakota is developing a state-wide system which includes the installation of radio receivers in all public schools, and the broadcasting of programs through State-owned stations.

At the University of Wisconsin in 1930 an experiment was conducted under the supervision of a committee headed by Dr. H. L. Ewbank, of the department of speech. Twenty-five schools equipped with radio and 25 similar schools without radio equipment were used. Courses in music appreciation and in current events were given in both groups, the only difference being that the radio-equipped schools received supplementary instruction by means of radio. A scientific evaluation of the results showed that the pupils in the radio-equipped schools made more rapid progress in these subjects than the pupils who did not have the benefit of radio.

Dr. F. L. Whitney, of Colorado State Teachers College, Greeley, Colo., made a study of the effect of radio programs on the selection, by students, of colleges in which to continue their education. The radio programs from the State Teachers College evidently had much influence on the decisions of high-school pupils.

The broadcasting stations of the land-grant institutions render valuable service in their respective States, and the Association of Land-Grant Colleges and Universities has a radio committee which has played an important part in the development of educational broadcasting.

The broadcasting of programs by the United States Department of Agriculture has passed the experimental stage. These programs reach daily one of the largest radio audiences, a rural audience which demands facts without embellishment.

Radio station WMAQ, Chicago, a pioneer in educational broadcasting for public-school pupils and adults (whose manager, Judith Waller, is chairman of the educational committee of the National Association of Broadcasters), has experimented with college courses of instruction, some of them broadcast between 8 and 9 o'clock in

the morning. These have attracted large audiences. Modern-language courses have been so popular that at times it has been difficult for the station to maintain a supply of the textbooks used by those who followed the courses. A monthly program of broadcasts for the public schools of Chicago and vicinity is issued. There is close cooperation between the station and public-school authorities. Miss Waller serves on a committee of the University of Chicago, which arranges its radio programs broadcast from station WMAQ.

Paul M. Pitman, educational director of station KPO, San Francisco, Calif., has secured the cooperation of several State departments of education in the Pacific coast region in a school of the air. The school audiences continue to increase, and the results of the work appear to be satisfactory to the educational authorities.

The University of Southern California has been granted the use of radio station KMPC, whose owner, R. S. MacMillan, has made contributions which enable the college to maintain a varied educational program for the radio listeners.

Practically all of the commercial broadcasting stations of the United States devote much time to educational programs. The Advisory Committee on Education by Radio, appointed by the Secretary of the Interior, reported that about 15 per cent of all broadcasting time was devoted to education. A later survey by the Federal Radio Commission indicated that about 10 per cent of the time of the broadcasting stations was devoted to programs which they considered to be educational. The results of the two surveys have not been compared in detail, and it is not known whether the amount of time devoted to education has actually been reduced by 33⅓ per cent or whether the difference is due to different methods of classification or tabulation. There are indications, however, that the demand of commercial advertisers for time on the air is so great that the advertising programs are gradually displacing educational programs except on educational stations.

The number of broadcasting stations owned and operated by schools, colleges, and universities, States, municipalities, or their agencies, has decreased during the past five years, as shown by the following: 1926, 105; 1927, 104; 1928, 98; 1929, 78; 1930, 65.

The remaining stations of this kind are the only ones whose programs are not subject to commercial censorship. The educational stations shown in the list of the Federal Radio Commission, issued February 2, 1931, were as follows:

WAPI	Birmingham, Ala	Alabama Polytechnic Institute, University of Alabama, and Alabama College.
WBAA	West Lafayette, Ind	Purdue University.
WBAK	Harrisburg, Pa	Pennsylvania State Police, Commonwealth of Pennsylvania.

WCAC__	Storrs, Conn_____	Connecticut Agricultural College.
WCAD__	Canton, N. Y_____	St. Lawrence University.
WCAJ___	Lincoln, Nebr_____	Nebraska Wesleyan University.
WCAL___	Northfield, Minn_____	St. Olaf College.
WCAM__	Camden, N. J_____	City of Camden.
WCAT__	Rapid City, S. Dak____	South Dakota State School of Mines.
WCAX__	Burlington, Vt_____	University of Vermont.
WCOA__	Pensacola, Fla_____	City of Pensacola, Fla.
WEAI___	Ithaca, N. Y_____	Cornell University.
WEAO__	Columbus, Ohio_____	Ohio State University.
WEHC__	Emory, Va_____	Emory and Henry College.
WEW___	St. Louis, Mo_____	St. Louis University.
WGST___	Atlanta, Ga_____	Georgia School of Technology.
WHA____	Madison, Wis_____	University of Wisconsin.
WHAD__	Milwaukee, Wis_____	Marquette University.
WHAZ__	Troy, N. Y_____	Rensselaer Polytechnic Institute.
WHBY__	Green Bay, Wis._____	St. Norbert College.
WHDI__	Minneapolis, Minn____	William Hood Dunwoody Industrial Institute.
WILL___	Urbana, Ill_____	University of Illinois.
WJAX___	Jacksonville, Fla_____	City of Jacksonville.
WJBU___	Lewisburg, Pa_____	Bucknell University.
WKAR__	East Lansing, Mich____	Michigan State College.
WLB____ WGMS__	Minneapolis, Minn____	University of Minnesota.
WLBL___	Stevens Point, Wis____	State of Wisconsin, Department of Agriculture and Markets.
WNAD__	Norman, Okla_____	University of Oklahoma.
WOI____	Ames, Iowa_____	Iowa State College of Agriculture and Mechanic Arts.
WOS____	Jefferson City, Mo_____	Missouri State Marketing Bureau.
WNYC__	New York, N. Y_____	City of New York, Department of Plant and Structures.
WPSC___	State College, Pa_____	Pennsylvania State College.
WRR____	Dallas, Tex_____	City of Dallas, Tex.
WRUF__	Gainesville, Fla_____	University of Florida.
WSAJ___	Grove City, Pa_____	Grove City College.
WSUI___	Iowa City, Iowa_____	State University of Iowa.
WSVS___	Buffalo, N. Y_____	Seneca Vocational High School.
WTAW__	College Station Tex____	Agricultural and Mechanical College of Texas.
WTFI___	Toccoa, Ga_____	Toccoa Falls Institute.
WWL___	New Orleans, La_____	Loyola University.
KBPS___	Portland, Oreg_____	Benson Polytechnic School.
KFDY__	Brookings, S. Dak_____	South Dakota State College.
KFJM___	Grand Forks, N. Dak__	University of North Dakota.
KFKU__	Lawrence, Kans_____	University of Kansas.
KFMX__	Northfield, Minn_____	Carleton College.
KFRU___	Columbia, Mo_____	Stephens College.
KFUP___	Denver, Colo_____	Fitzsimons General Hospital, United States Army.
KGEW__	Fort Morgan, Colo____	City of Fort Morgan.
KGY____	Lacey, Wash_____	St. Martins College.
KOAC___	Corvallis, Oreg_____	Oregon State Agricultural College.

KOB	State College, N. Mex	New Mexico College of Agriculture and Mechanic Arts.
KOCW	Chickasha, Okla	Oklahoma College for Women.
KREG	Santa Ana, Calif	Pacific-Western Broadcasting Federation (Ltd.).
KSAC	Manhattan, Kans	Kansas State Agricultural College.
KUOA	Fayetteville, Ark	University of Arkansas.
KUSD	Vermilion, S. Dak	University of South Dakota.
KWLC	Decorah, Iowa	Luther College.
KWSC	Pullman, Wash	State College of Washington.

Printed programs from these stations on file in the Office of Education show that they are broadcasting material of educational value and of interest to radio listeners who seek education rather than amusement.

These are the stations which the National Committee on Education by Radio is attempting to protect against commercial efforts to secure these channels. It is obvious that unless the States and institutions owning and operating these stations succeed in maintaining and developing their work the radio channels allocated to them will pass into the hands of the commercial broadcasters.

CHAPTER XIX

LIBRARY SERVICE

CONTENTS.—I. Library service, by Sabra W. Vought—II. A decade of school-library achievement, by Edith A. Lathrop

I. LIBRARY SERVICE

By SABRA W. VOUGHT

Chief of Library Division, Office of Education

INTRODUCTION

"Library work is a constructive social service adapting itself to patrons of all ages from the child beginning to read pictures to the octogenarian who seeks solace in fancy from the disconcerting facts of life. It builds and does not tear down; it is preventive as well as remedial; its large contribution is to the normal, but the abnormal are not neglected; through books it provides recreation and rehabilitation, information, and inspiration."[1]

"Librarianship is a profession of books and scholarship, a field for high administrative skill, a constructive social service."[1]

"We have mastered the mechanical distribution of books, we are now girding ourselves to transform our libraries from mere reading clubs stocked with anodyne literature into educational institutions where the individual reader is recognized as being not only a carpenter, an engineer, a merchant, but also a man, a citizen, who presumably has interests, worthy aims, potentialities, wholly apart from those employed in earning a living or creating material wealth."[2]

The above quotations from the writings of the present president of the American Library Association show something of the trends of library work and give a glimpse of future possibilities under the leadership of librarians who are no longer merely book keepers but who are active forces for better citizenship in their communities.

[1] Education for Librarianship. *In* Third Annual Report of the Board of Education for Librarianship, 1927, p. 9.

[2] A New Charter, by Adam Strohm. *In* Fourth Annual Report of the Board of Education for Librarianship, 1928, p. 14.

Library development has followed much the same course as the development of the school. Beginning with institutions of higher learning for the rich and leisure class, the school came gradually to concern itself with the education of the children of the masses, rich and poor alike. Following the development of colleges and universities, the secondary and elementary urban schools were pretty well equipped to give the city child the best possible training, but the rural schools still suffered from lack of funds and proper equipment. Now the efforts of educators are bent toward giving the child in the country educational opportunities equal to those of the city child. In much the same way the library of the Middle Ages served only the rich and scholarly. Fifty years ago public libraries began to provide books for the people who lived in cities or within easy reach of them. The rural districts, however, were entirely without the benefit of libraries. To-day one of the most active developments of the library is to be seen in the effort to bring to the people in remote districts book facilities equal to those which have long been available to residents of cities and towns.

THE COUNTY LIBRARY

Next to adult education the county-library development of the past few years has been the outstanding manifestation of the forces of education in this country. It has helped to solve one of the most baffling problems in library extension.

For years many small city or village libraries have struggled to serve their communities. These libraries were poorly equipped, inadequately financed, badly managed, for the most part, and wholly insufficient for the work undertaken. Is it any wonder that the towns already burdened with taxes, looked upon libraries as luxuries which provided books for women and children, but served no practical purpose? When the Carnegie Corporation provided funds for library buildings the recipients promised a certain amount for support. This amount was rarely enough to provide for extensive future growth. When the cost of books increased, in many cases more than 100 per cent, the libraries were starved and languished accordingly. Now the county library has appeared and is slowly proving its great value to the villages and to the rural districts.

This library usually operates from a central location in the county seat or other large center of population. Existing libraries throughout the county may either withdraw from the system or may cooperate by becoming branches of it. Other branches or deposit stations may be located at advantageous points throughout the county. To these branches will be sent books and magazines from the county library. The operation is similar to that employed in the adminis-

tration of a city library with its branches and deposit stations, but the county library goes a step further. By means of a truck books are taken to the most remote schools and even to the homes of the inhabitants. In some cases the schools serve as deposit stations for both juvenile and adult books, while in others the collections contain only books for children. The books may be changed from time to time thus keeping the collections fresh and attractive. In this way the rural schools may be as well provided with books as those in the city and the school libraries are no longer musty collections of books which are neither attractive nor valuable.

In order that the county library movement may be promoted to the best possible advantage, the American Library Association has added to its permanent staff an executive assistant whose chief interest is in the county library. Several State commissions are also adding field workers who have supervision of the county libraries of the State. This is specially true of the Southern States where the Rosenwald Fund has made grants for the promotion of rural education and the establishment of two county libraries in each State.

One writer, in commenting on the rural library situation says, "The only completely successful plan for providing rural and village schools with library service is the plan of county libraries, with a strong library agency at the State capital to coordinate and supplement them."

The library movement in our outlying possessions has developed quietly and rather surprisingly. Particularly outstanding is the claim of Hawaii that it has surpassed the States in setting up a complete county library service. Governor Judd says: "Popular education in the Hawaiian Islands is greatly furthered by universal public library service. Four county libraries, supported by Territorial appropriations, make books available to children and adults in even the most remote island, supplement the work of the schools, and provide a means of continuing education when school days are over. Hawaii is justly proud of its county libraries." [3]

There are still many counties in the country that are without library service; there are even States in which no county library exists. The next few years should see a marked change in this respect, as each State becomes more and more alive to the possibilities of the county library. During the past year bills for the establishment of county libraries were introduced in the Legislatures of Louisiana, New York, and Virginia. Although legislation failed in each State much interest was aroused in the movement.

A recent writer says concerning this problem: "It will readily be seen that when there are more than 3,000 counties in the United

[3] Signposts, Vol. 12, No. 3, p. 6. January, 1931.

States, when only 1,100 of these have library service of any kind within their borders, when only 245 have county library service, the discrepancy between actual and possible county library development is enormous."[4]

SCHOOL LIBRARIES

Some one has said that the security of democracy rests on an intelligent electorate. In order that the adult may be intelligent the child must be taught to think straight and to judge the true from the false in what he reads.

As long ago as 1876 Charles Francis Adams deplored the fact that the schools taught the child how to read but did not teach him *what* to read, thus neglecting what he termed "the great connecting link between school education and self-education." This is still true in a large measure to-day. But the schools are coming to realize the necessity of providing many books so that the child may develop with satisfaction his new-found skill of reading; develop it until it becomes a fixed habit that will last throughout his life. By this process there is being formed the bridge between the public school and the public library, which Mr. Adams urged in this same address.[5]

Public libraries have sometimes been inclined to look upon school libraries as rivals. Those who have studied the problem have felt that the school library is only the preparatory school for the public library. As few children could enter the secondary school without the preparation given in the elementary grades, it is equally true that in order to use the public library effectively there must be training and previous preparation. In no other place can this training be given as well as in the school where all the children can be reached, and where the machinery for teaching has already been set up. It is, therefore, gratifying to find that a like conclusion has been reached by a man who has studied the problem from an entirely different point of view. R. L. Duffus, in Books, Their Place in a Democracy, which has been quoted above, says:

> Library development in the South has been given an impetus by the standards adopted not long ago for accredited schools. These * * * call for at least "five hundred well-selected books, exclusive of Government documents, textbooks, and duplicates, to meet the needs of reference, supplementary reading, and cultural and inspirational reading" in every high school of one hundred students or less; and more in the larger schools until for an enrollment of one thousand or more students there are required "five thousand or more well-selected books, newspapers, and at least forty suitable periodicals." There

[4] R. L. Duffus. Books: Their Place in a Democracy. Boston, Houghton Mifflin, 1930.

[5] Charles Francis Adams, jr. The Public Library and the Public Schools. A Paper Read to the Teachers of the Public Schools of Quincy, Mass., on May 19, 1876. (*In* Green, S. S. Libraries and Schools. New York, Leypoldt, 1883.)

must be a teacher librarian with at least six weeks' training in library work for the smaller schools and in the largest schools a full-time librarian with college graduation and at least one year in an approved library school.

The author then points out that when the students have used these book collections and have taken the required courses in the use of books they will no longer be content with inadequate public libraries after they have left school.

Carl Milam, secretary of the American Library Association, is quoted in School and Society for February 7, 1931, as saying:

> The more than one million dollars given in 1930 to aid the development of school and college libraries placed a new emphasis on the importance of library facilities and book service in educational institutions from elementary grades to universities.

Sixteen per cent of the high schools in the United States now have libraries. This is a gain of approximately 12 per cent over the number reported in 1927. The development of school libraries will be discussed at length in another part of this report.

COLLEGE AND UNIVERSITY LIBRARIES

Changes have come about in the libraries of the institutions of higher learning that are comparable to those that have taken place in the elementary and secondary school libraries. The college freshman who has been trained to the use of books from the time he entered the grades demands of the college library a service not dreamed of a few generations ago. The library has long been called the heart of the college, but it is only since the changing methods of teaching have compelled the student to consult many books instead of memorizing one that the heart has functioned in most institutions. The library has been changed from the storehouse of rare and costly books, closely guarded and exhibited only on special occasions, to a service station where books are constantly in use and where professors may bring groups of students for seminars or consultation, with the books needed for their work immediately at hand.

Nor is the service of the library confined to the campus. Within the past year a movement has been started to extend the privileges of the college library to the alumni. This service includes not only the lending of books to former students but also the preparing of reading courses on subjects of interest to them. The success of the plan is not yet assured, as it is still in the experimental stage. But it seems to be a step in the right direction; at least it attempts to make available the splendid resources of college and university libraries to the men who have more leisure for reading as their tastes dictate than they had in college when "required reading" bulked so large.

The changes in service have necessitated a change in architecture. No longer is it sufficient that the college library be merely an architectural memorial, beautiful to look at, but impossible from the viewpoint of the administrator. The modern college library now provides, in addition to its bookstack and main reading room, many small rooms of varying size, some large enough for a whole class that finds it advantageous to meet in a place where books are readily accessible. Other rooms are smaller and suited to the use of conference groups, while in many libraries cubicles or carols are built in the bookstack to accommodate members of the faculty or students who wish to work for several days with groups of books which they do not care to take from the building or which are not allowed to circulate.

The recent survey of land-grant colleges brought out several interesting facts concerning the libraries of these institutions. Chief among these is the greatly increased use of books. This increase is evidenced by the attention now given to libraries in the catalogues of the institutions. To quote from the survey itself, "Before 1900 the library was listed incidentally after farms, shops, and museum collections, if, indeed, it was mentioned at all. Now the library is given prominence as one of the important factors in the educational resources of the college." The circulation of books for home reading has increased tremendously during the past 25 years, partly due to the changed policies of the libraries and partly to the different methods of instruction. In 1906 the library of the University of Michigan loaned no books for reading outside the library. In 1928 the average student in many colleges borrowed from two to four books a month for home reading, besides reading extensively within the library building.

Besides providing for the work of students and faculty the college library aims to provide wholesome recreation for their leisure. To that end browsing rooms are planned in most modern college library buildings. These rooms surround the old "open-shelf collection" with the environment of a club, where comfortable chairs and open fires invite the student to linger and become acquainted with the best books of all times. The books in these "browsing" collections are usually in the best editions obtainable, books that encourage the love of reading and that often open up an entirely new world to the student who has thought of books only as a dreary means to success in examinations. The new Baker Library at Dartmouth has a most luxurious room of this kind.

The college librarian is no longer the watchdog guarding a treasure and rejoicing when every book is in place on the shelves. He seeks by every means possible to help the members of his community

to obtain the best and latest information available, and also to teach them to use books and libraries wherever they may be. The student who completes his college course and boasts that he has never been inside the college library building is the exception and not the rule, as formerly was the case. Courses in the use of books are given in most colleges, while a trip through the library with explanations of its different departments and functions is a part of most orientation courses for freshmen.

In recognition of the value of college libraries and the effort they are making to aid the entire work of the institutions of which they are a part, the Carnegie Corporation, instead of continuing to give money for library buildings, is giving to a selected number of liberal arts college libraries grants of money for the purchase of books. Before the grants are made the colleges requesting them are very carefully inspected and a number of points are considered, including the present condition of the library, the scope of its collection and its place in the college program. The grants vary in size and extend over a period of years, thus enabling the libraries to build up their book collections consistently.

ADULT EDUCATION AND THE LIBRARY

Melvil Dewey used to tell his students in library classes that the library was primarily a means of continuing education beyond the school. That while the school provided formal training at school during youth, the library was a means of education "for the adult, at home, through life." That was long before "adult education" had received a name, or had bulked as large in the educational program as it does to-day. Consequently when "adult education" began to be talked about, librarians said, "But that is what we have been doing. We have been educating adults right along!" But this was true only in a limited sense because librarians needed the help of educators. Schools must train children to use books before the libraries can effectively foster adult education. All the means for promoting adult education must be coordinated.

A report on libraries and adult education, published by the American Library Association in 1926, pointed out the ways in which the library could contribute to the movement. In pursuance of this suggestion a permanent secretary for adult education has been added to the staff of the American Library Association, and many public libraries have added a "reader's advisor," who helps the inquirer to select the books that will be useful to him, furnishes reading lists on subjects in which he is interested, and is the means of contact between the library and the public.

The demand for reading lists became so insistent that the American Library Association undertook the publication of a series known as Reading with a Purpose. The volumes comprise a brief essay on some subject of interest and a list of books on the same topic. This series has been widely used by libraries in the promotion of home study.

In a recent address on Adult Education and the Library, Morse A. Cartwright, director of the American Association for Adult Education, said:

> It is notable that in every community movement for the organization of adult education facilities which has originated of late years—and there have been many—a librarian has always been among the leaders, with his nonpartisan, nonsectarian library used as a rallying point and always reckoned as the chief auxiliary aid to all agencies and institutions concerned.

At the conclusion of the foregoing address he said:

> Can there be a doubt of the effectiveness of the part which the library is to play in the adult education of the future? I see vastly increased library facilities as the only logical outcome of the development of the adult education idea. I see stern necessity ahead for the development of many more than our existing libraries; I see the need, if you please, of a new type of librarianship, which shall be at one and the same time scholarly and in possession of a broadly generous outlook on general education; I see the library ministering alike to the inner craving for mind expansion of the educationally underprivileged, and to the continued stimulation of mature and cultured minds. Educationally, to my mind, the public library has entered upon the golden era; it holds the greatest opportunities in the task to which all American education can be dedicated—the production of an American culture.[6]

TRAINING FOR LIBRARIANSHIP

Since the publication in 1923 of the Williamson report on Training for Library Service,[7] library schools have made decided progress toward meeting the recommendations set forth in that report. Doctor Williamson had stressed the need for college education for all librarians. To quote from the report:

> College education is now required of the high-school teacher in practically every part of the country. How can the public library, even in the smallest town, be expected to serve intelligently the needs of all classes if the librarian is not at least as well equipped as the high-school teacher? The librarian, indeed, if he is to live up to his opportunities, should be the intellectual peer of the high-school principal, the superintendent of schools, the minister, the editor, and all other educated persons upon whom the community depends for leadership.

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[6] Southern Conference on Education, 1929. (University of North Carolina Extension Bulletin, Vol. 10, No. 4.)

[7] Williamson, C. C. Training for Library Service, a report prepared for the Carnegie Corporation of New York, 1923.

He had also shown the need of training for different types of work and the necessity for discriminating between professionally trained librarians and those trained for clerical positions. He recommended that library schools confine themselves to training for the professional type. Training of the clerical type could be provided by the training classes conducted by libraries.

In 1924 the Temporary Library Training Board of the American Library Association, appointed in May, 1923, presented findings which showed that the existing library schools were inadequately financed, that there existed a great variation in entrance requirements, curricula, faculty qualifications, and library facilities, and that there was insufficient cooperation among the training agencies to secure a correlation of the work given by them; further, that there was no organization which had authority to promote or to evaluate the various grades of education for librarianship.

This board therefore recommended the creation of a permanent board of education for librarianship. Some of the duties of such a board would be to study library service and its needs, and promote the further development of education for librarianship; to formulate minimum standards for all courses in library work; to classify the training agencies in accordance with the standards; and publish annually a list of those that were accredited.

The permanent board was appointed and its report to the council of the American Library Association in 1925 shows that a survey of the library schools in the United States had been made, and data assembled regarding education for librarianship; that a ruling had been secured from the Association of American Universities regarding degrees to be conferred upon the completion of library curricula; that minimum standards for schools of various types had been formulated; and a program laid out for the future of all types of library training.

At the end of five years the board reported the very cordial response to its recommendations that had been received from the library schools. The standards set up had been accepted as the best available at the time, the schools had changed their plans to conform more nearly to the standards, financial support had been increased, and, in general, a new sense of professional dignity had emerged. Entrance requirements have been more clearly stated, academic degrees are being granted, while the colleges are giving to the library school instructors proper academic rank, and better financial support. One outstanding development has been the eligibility of librarians to many scholarships and fellowships formerly unavailable to them. This has been brought about by the many

contacts made by the board with educational associations and scholarship granting foundations.

One of the chief effects of the adoption of the standards set by the board has been the incorporation into degree-conferring institutions of many library schools which were formerly entirely separate or only loosely affiliated with such organizations. This procedure has worked to the advantage of such schools by advancing the academic status of the teaching staff, furnishing better conditions for work, and standardizing the degrees conferred. As was indicated at the beginning of this discussion, such affiliation of the library schools with colleges and universities is directly in line with the recommendations of the Williamson report.

There is a growing demand on the part of librarians for opportunities to carry on advanced professional work in the library schools connected with universities. At present few instructors are qualified to direct such work and few librarians are equipped to carry it on. The development of facilities for this kind of work will mean much in advancing the professional status of librarianship.

As an indication of the thoroughness with which the whole program of education for librarianship is being studied, one needs only to mention some of the subjects on which studies have been undertaken. A few of these are: The question of the supply and demand for trained librarians as affected by different phases of the work or by geographical conditions; the transfer of training from other scholarly professions to that of librarianship; the investigation of library training schools and courses with the view to the possibility of transfer of credits from one to the other; the development of other schools in locations remote from the present centers of training; the teaching load of library school faculties; the study of instruction in training classes of libraries as compared with that given in library schools and the formulation of standards for such training classes. Other topics to be studied include library terminology, certification of librarians, and topics suitable for theses for higher degrees in library science. Special attention has been given to the training of school librarians. The subject of textbooks for library schools has been carefully studied. This will be discussed in another section.

As an example of the progress made by library schools in the past five years the following figures are significant: In October, 1925, the accredited library schools numbered 14 and had an enrollment of 526 students. In 1929 there were 18 accredited schools with 1,076 students enrolled. Most of these accredited schools are

connected with degree conferring institutions. During the summer of 1930 courses in library work were offered in 80 summer schools.

TEXTBOOKS

One of the reasons for a lack of standardization in the curricula of library schools has been the lack of textbooks for the subjects taught. Consequently the work of the schools was conducted largely by the lecture method. The chairman of the Board of Education for Librarianship met the criticism that standardization was "against modern liberal tendencies in education" by saying, "Technical skill, knowledge of tools and methods, are necessary to any craftsman for economy and effectiveness of effort, but we disclaim any intention of handcuffing a free-spirited worker in his application of such crystallized experience." [8]

In 1925 the Board of Education for Librarianship inaugurated a library curriculum study under the supervision of Dr. W. W. Charters, professor of education at the University of Chicago. An analysis of library work was made and the preparation of textbooks on library subjects was undertaken. These textbooks, after being prepared by librarians, were carefully tried out in the library schools and revised on the basis of the criticisms received before they were printed. Seven of these have appeared and are proving invaluable aids to the schools and also to librarians who wish to refresh their knowledge and keep up with the progress of the profession. These books, published by the American Library Association, are: Reference Work, by J. I. Wyer; Introduction to Cataloging and the Classification of Books, by Margaret Mann; The Library and the School, by Lucile F. Fargo; Circulation Work in Public Libraries, by Jennie M. Flexner; Book Selection, and Order Work for Libraries, by F. K. W. Drury; Library Service to Children, by Effie L. Power.

LIBRARY WORK WITH SPECIAL CLASSES

Negroes.—Library work for Negroes has developed very rapidly during the past few years. In 1925 the first accredited professional school for negro librarians was opened at Hampton Institute under the direction of Florence R. Curtis. This school has been largely responsible for the progress of libraries in negro institutions. It has supplied librarians for negro colleges and has helped to develop "library-mindedness" among negro educators.

In the spring of 1927 a conference of negro librarians was held at Hampton Institute, at which the discussions were confined to pro-

[8] Second Annual Report of the Board of Education for Librarianship, 1926, p. 8.

fessional problems relating to libraries in negro institutions. A second such conference was held in November, 1930, at the time of the dedication of the new library building at Fisk University.

This building, the first to be built from the fund appropriated by the General Education Board for library buildings for negro colleges, is a magnificent structure costing $400,000. Similar grants have been made to other negro colleges in the South. The Julius Rosenwald Fund has given the sum of $105,000 to be used for operating the Fisk University Library over a period of seven years. The Carnegie Corporation has also given $50,000 for the purchase of books. The library is thus assured not only of adequate housing, but also of a well-stocked library and a professionally trained staff.

The Julius Rosenwald Fund also made possible a summer institute for negro librarians which was held in 1930 at Spelman College, Atlanta, Ga., under the supervision of Charlotte Templeton, president of the Southeastern Library Association.

Prisoners.—In order to fulfill its function as defined many years ago by one of the most distinguished members of the library profession, the library has striven valiantly to "bring to all the people the books which belong to them." The inmates of institutions have not been neglected, but frequently the work has been carried on without any clearly defined plan. In a recent book on the Education of Adult Prisoners, the author, Austin H. MacCormick, assistant director United States Bureau of Prisons, says: "The usual prison library consists of a mongrel collection of gift books, many of which are discards from city libraries or the homes of well-meaning citizens. Almost never does one see new or attractive books in fresh bindings on its shelves. * * * Most institutional libraries are not libraries at all, properly speaking, but merely collections of books." Continuing he says: "To make the prison library fulfill its proper function as an educational agency * * * the two chief needs are for adequate finances and for skilled supervision, the latter involving the application of standard library technique not only in the mechanical processes but also in the stimulation and guidance of readers' interests."

A supervising librarian has recently been appointed in the Office of the Superintendent of Prisons, United States Department of Justice. He is helping to round out prison libraries with purchases of new books and is issuing simple bulletins on technique for the guidance of those in charge of them. There is a trained librarian in one reformatory. Pending the appointment of others, he is being sent to each of the penitentiaries to reorganize the libraries and to help to establish a system of reader guidance.

Some of the State library commissions are also helping the work in penal institutions. One furnishes the books needed by the prisoners who are enrolled for correspondence courses. Others are furnishing reading courses on any subjects the prisoners may request and are supplying outlines and books for the pursuance of these courses.

In most places pioneer work is being done in the prison libraries. The next few years should show a marked progress in this most important field.

MARINE SERVICE

In 1921, at the suggestion of the American Library Association, there was formed the American Merchant Marine Library Association. This was an outgrowth of the wartime library service to soldiers and sailors. Its object was to provide reading matter for the men of our merchant marine and has since been extended to include library service to life-saving stations, lighthouses, and lightships. During the year 1929 there were circulated 340,542 books to 11,517 persons, in 1,653 ships, 225 life-saving stations and 73 lighthouses and lightships. Of the ships served 377 were Great Lakes vessels. As the "public library of the high seas" has no taxes to support it, its existence depends on voluntary contributions. The report of the association for the year 1929 describes the work in detail and furnishes an interesting picture of an unusual development of library service.

OUTLYING POSSESSIONS

Mention has already been made of the development of county libraries in Hawaii. Library progress in the Philippines is also noteworthy. An article appearing in the South Indian Teacher for December, 1930, shows many interesting facts concerning the libraries of the Philippines and discusses at length the library movement there. In 1929 the national library containing 167,546 volumes circulated 272,371. This library has 11 branches and 6 deposit stations. During the year 1929 the number of school libraries increased from 4,350 to 4,697; these libraries contain more than a million and a half volumes.

LIBRARY OF THE UNITED STATES OFFICE OF EDUCATION

At the midwinter meeting of the American Library Association, held in December, 1929, the question of the relation of the Federal Government to libraries was discussed. Ten points considered were the following:[9]

[9] Bulletin of the American Library Association, Vol. 23, No. 12, December, 1929.

Is it the duty of the Federal Government to—

1. Maintain an adequate library on education for the staff of Government employees in education and for other students?

2. Extend liberal interlibrary loan privileges?

3. Prepare and publish bibliographies of current books and pamphlets within this field?

4. Prepare special bibliographies on educational subjects on request?

5. Compile and publish statistics of all kinds of libraries?

6. Make investigations, surveys, and studies of library service to schools and colleges? Library service of all kinds?

7. Issue publications on library service to schools and colleges? Library service of all kinds?

8. Maintain a library division of the Federal Office of Education, with a staff competent to serve as library experts in connection with any study or survey in the field of education?

9. Give advisory assistance on library service to schools and colleges? On library service of all kinds?

10. Give financial aid to promote and develop library service?

As most of these activities have long been a part of the work of the library of the United States Office of Education, it may be worth while at this time to discuss in some detail just what the Federal Government has been doing for libraries, especially in the field of education.

The Office of Education library numbers about 150,000 volumes entirely devoted to the subject of education or closely allied material. Some of its special collections are: Educational periodicals, of which about 800 are regularly received, and a large number bound for the permanent file; reports of State and city departments of education; proceedings of educational associations; catalogues of all colleges, universities, and teacher-training institutions in the United States and in many foreign countries, which also are bound for the permanent collection; textbooks on all subjects, at all educational levels. In addition to these the library is now beginning to collect from colleges and universities, all doctors' theses in education, to be added to the permanent file. The following services are now maintained: Information service for those interested in libraries of all types, especially those connected with educational institutions (this service includes advice on planning and organizing such libraries, the preparation of book lists, and suggesting means for developing the libraries); lending service, which includes interlibrary loans and direct loans to educators throughout the country; reference service for all inquirers, especially those in the United States Office of Education, but including also graduate students,

teachers, and school children (this service consists of answering questions by letter, sending bibliographies and reading lists on any subject connected with education and referring such inquiries as do not fall within our scope to other Government libraries where the information can be found); bibliographic service comprises the preparation of lists of various kinds, namely, short annotated lists on special subjects, longer mimeographed lists on general subjects, and printed lists on the more important subjects. Certain special bibliographies are issued regularly: Record of Current Educational Publications, which is published quarterly, and the Bibliography of Research Studies in Education, which is issued annually with additional supplements. The record was formerly compiled in the library and issued as a bulletin of the office. An innovation has recently been introduced whereby the material listed, consisting of significant publications issued during the quarter, is contributed by specialists in the various fields of education, both American and foreign. An index of authors and subjects accompanies each issue, making it more valuable to the user.

The library also assists in the preparation of several publications of the office. It helps to gather material for the Statistics of Public, Society, and School Libraries, which is issued by the Office of Education every four or five years; it has a considerable share in the preparation of the Educational Directory, which is published annually.

As the Bibliography of Research Studies in Education is a rather recent undertaking in the library of the Office of Education, it may be of interest to discuss it at some length.[10]

It had long been felt that in studies pursued in many institutions of higher learning and by research organizations, there was much duplication of effort. Investigators in the educational field had often started a study and pursued it practically to completion only to find that the same work had previously been completed in some other institution. This situation had worked a real hardship on students engaged in graduate work in education. To remedy such a situation it was proposed, in October, 1927, to institute a clearing house for information on all research studies in education, including masters' and doctors' theses, both those recently completed and those still in progress.

Previous to this time the Bureau of Educational Research of the University of Illinois, under the direction of Prof. Walter S. Monroe, had collected, at intervals of two years, the titles of masters' and

[10] The statement regarding the Bibliography of Research Studies in Education was prepared by Edith A. Wright, who is in charge of the preparation of the bibliography.

doctors' theses in education accepted in institutions throughout the United States. The first of these compilations, of which there were five, covered the period from January, 1917, to June, 1919; the last covered the period from October, 1925, to October, 1927. The Bureau of Educational Research further aided the cause through the publication of its "Ten Years of Educational Research, 1918–1927," in which 3,650 titles for that period were listed.

In October, 1927, when the Office of Education inaugurated its Research Information Service, a comprehensive list of colleges and universities, city and State education research bureaus, and other agencies engaged in educational research was compiled, and letters were sent to all of them asking their assistance in the undertaking. Many of these agencies have shown a fine spirit of helpfulness and cooperation in the project. The State Department of Education of North Carolina, for instance, has made arrangements by which the department collects for this office information concerning all educational research studies carried on in the State. It is possible that a similar plan can eventually be accomplished in other States.

When this project was inaugurated it was planned to issue from time to time mimeographed lists of studies in progress, and accordingly there was published in March, 1928, a list of 800 studies in progress, followed in May, 1928, by a supplementary list. Later it was found that many of the studies reported "in progress" were never completed. It was therefore decided to file the cards received for studies in progress by subjects so that the information might be available for consultation, and to publish annually in printed form a list of the completed studies. This has been done for three years, 1926–27, 1927–28, and 1928–29. The material for 1929–30 is now in preparation. These annual bibliographies of research studies in education list masters' and doctors' theses, research studies in a number of periodicals, studies undertaken by State departments of education, city school systems, and other agencies. The volume for 1928–29, which was issued in 1930, contains references to 3,065 studies on various phases of education.

As an outcome of a conference on cooperative research held at Atlantic City, February 27, 1930, in connection with the meeting of the Department of Superintendence of the National Education Association, the Office of Education agreed to publish from time to time, in mimeographed form, lists of educational research studies in city school systems. The first list in this series was issued in August, 1930, as Office of Education Circular No. 18. In addition to studies recently completed by city school systems, it contained also information concerning studies in progress and studies contemplated for the school year 1930–31. This project was formerly carried on by

the Research Division of the National Education Association. Another project of that division, but now undertaken by this office, is the list of research studies in education that are prepared in State departments of education and State educational associations. The first number in this series has been issued in mimeographed form as Office of Education Circular No. 31, dated January, 1931, and listing studies recently completed and those in progress.

As an adjunct to the research information service, it is necessary that a complete and up-to-date list of educational research bureaus and agencies throughout the United States be maintained. In the Educational Directory for 1931 is a list of directors of bureaus of educational research in State departments of education, State educational associations, city school systems, universities, and colleges. A recent leaflet of this office gives certain information concerning the organization and functions of city research bureaus.

All data collected in connection with this service are available for the use of persons engaged in educational research and will be of value to the extent that all interested in the subject cooperate toward keeping the Office of Education informed of research studies in education.

THE LIBRARY OF CONGRESS

No discussion of library progress written at this time could fail to mention the distinguished contribution that is made by the Library of Congress. This has long been the largest collection of books in the Western Hemisphere, but it is only comparatively recently that it has developed into a truly national library, one that is comparable to the great national libraries of other countries. Increased endowments have made it possible not only to enlarge the book collection, but also to add to the staff many specialists who may be available for service to the serious students who use the library.

During the past year an addition has been made to the book collection that places the library unquestionably among the half dozen greatest libraries in the world. By an act of Congress which appropriated $1,500,000 for the purpose, a collection of 3,000 incunabula was purchased. This collection, made by Dr. Otto H. F. Vollbehr, includes a copy of the Gutenberg 42-line Bible printed on vellum, one of three perfect copies extant. The report of the Librarian of Congress for 1930 gives a most interesting account of this collection and the action of Congress which resulted in its purchase.

Grants from the Guggenheim fund have enabled the library to assemble the "finest aggregate of the literature of aeronautics existing in any single institution." These are only two examples of the

extremely important recent development of the National Library. Each shows progress and growth undreamed of 25 years ago by even the most sanguine members of the library profession.

GIFTS

The past few years have been noteworthy for the gifts that have been made to libraries and library-training institutions. During 1930 a great gift to the Nation was made by Henry Clay Folger, who presented a distinguished Shakespeare collection, a beautiful building in which to house it, and an endowment of $10,000,000 for maintenance. While not given directly to the Library of Congress, the Shakespeare library is to be near and is to cooperate with that library. The director, chosen by Mr. Folger, is to be William Adams Slade, former chief bibliographer of the Library of Congress.

Dr. A. S. W. Rosenbach has given $20,000 to the University of Pennsylvania to establish an honorary fellowship in bibliography.

The magnificent new library building at Yale University, made possible by a bequest from John W. Sterling, of the class of 1864, is nearing completion and will be occupied before the end of the college year.

Special grants from various funds have been made for the purpose of promoting and strengthening libraries and for the improvement of library training. The annual report of the General Education Board for 1929–30 shows one such grant:

> The association of colleges and secondary schools of the Southern States has indicated that after the autumn of 1931 no preparatory school of 100 or more students will be accredited by the member colleges unless it employs a school librarian with at least one year's training in library science. In consequence of this ruling, colleges in the South are seeking teachers prepared to give such library training. To meet this demand the George Peabody College for Teachers proposes to maintain a school for the training both of school librarians and of teachers of library science. Toward the support of this school during the first three years the board appropriated $75,000 and also gave $5,000 for equipment.

CARNEGIE CORPORATION

In another place we have discussed the recent plans of the Carnegie Corporation for assisting college libraries to improve the quality of their book collections. This is only one of the many activities undertaken by this corporation for the promotion of library interests.

Several grants have been made to increase the opportunities for professional training for librarians. Its largest grant of this kind was made in 1926. This was $1,000,000 for the endowment of a

graduate school of library service at the University of Chicago. One hundred thousand dollars has also been granted to the University of North Carolina for the establishment of a library school in the South.

To the Pan American Union was given $500,000 for a new building which will house the library of the union, known as the Columbus Memorial Library.

In 1925, through the generosity of the Carnegie Corporation which contributed the necessary funds, a 5-year experiment in library development was undertaken by the League of Library Commissions. The aim of the experiment was to determine what could be done with a comparatively small sum in a community that was without libraries. Under the supervision of Milton J. Ferguson, California State librarian and president of the League of Library Commissions, Louisiana was chosen as the place for the experiment.

There was at that time no library commission in the State. One was organized immediately and a state-wide survey of library facilities was made. It was found that outside of the two large cities there were but three free public libraries, all of which were housed in Carnegie buildings and inadequately equipped with books. There were not more than five librarians in the State who had training amounting to a summer course or more, and the three public libraries were administered by librarians with less than a year's training. The nearest library school was in Atlanta, Ga. There was also only one city outside of New Orleans that had a regular bookstore. The school and college libraries were no better. Only two high schools had librarians with summer training and none had as much as one year's training. No attempt was made in any school to give instruction in the use of books or to stimulate reading through the library. No State library association or library club had existed since 1911, probably due to the lack of trained librarians who might have been interested in such an association.

The Carnegie Corporation provided $50,000 to be used over a period of three years. During the first year the State made no appropriation for the work, but for the next two years the legislature appropriated $5,000. J. O. Modisette, chairman of the Louisiana Library Commission, says in his introduction to the Report on the Louisiana Demonstration:

> At the end of the third year the legislature appropriated $12,000 to aid during the fourth and fifth years of the demonstration. At the end of the fifth year, when the whole country was in a serious financial depression and the State of Louisiana particularly was sustaining unheard-of financial disasters, the legislature appropriated $37,000 for continuing the service for the next two years. The progress achieved in the legislature alone is sufficient to justify our pride.

Some further results, besides the winning of the legislature, are: State-wide reference service from the Library Commission at the State capitol; the passage of a modern library law; the establishment of legislative reference service; three parish libraries (corresponding to county libraries in other States) established and six more projected; purchase and equipment of a bookmobile designed to show rural people the kinds of books that would be supplied by the parish library; an active illiteracy program by which 24 lessons are offered free of charge to more than 100,000 persons enrolled; the addition of a library supervisor to the staff of the State department of education; library training given in a 12 weeks' summer course at Louisiana State University; and 6 weeks' courses given at six other institutions. The book needs of the inhabitants, white and colored, are being supplied and a desire for books is being created among people who have heretofore been entirely without library service.

From time to time the corporation has financed studies of conditions which, while perhaps not directly connected with library service, have usually resulted in valuable contributions to knowledge and have been of inestimable value to librarians. A recent study of the kind resulted in a book by R. L. Duffus entitled "Books, Their Place in a Democracy." This was a study of the publication and distribution of serious, nontechnical books, made in the hope of developing suggestions as to ways and means of extending the circulation of such books. The author reached the conclusion that the relative unimportance of books in American life is due less to the apathy of the public than to the failure of those who distribute books to devise systems for reaching large numbers of persons. He discusses the publisher, the jobber, book clubs, bargain-counter books, public, city, and rural libraries. He then draws the conclusion that there are millions of Americans who actually want books—but who either do not know they want them or do not know how to use them.

THE CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

Through the cooperation of the Carnegie Endowment for International Peace the Vatican Library is being made more accessible—at least its collections will be of greater service to the library world. Dr. W. W. Bishop, librarian of the University of Michigan, spent three weeks checking over various matters at the Vatican and making suggestions of a technical nature. A photoduplicating apparatus has been provided by the Carnegie Endowment so that prints of manuscripts, maps, engravings, etc., may be supplied at very reasonable rates. The work of cataloguing the great collection is progressing, and the library is being organized on a modern plan. The

Carnegie Endowment in its annual report says, "This work is one of the outstanding evidences of international intellectual cooperation which the division of intercourse and cooperation so constantly and so earnestly promotes.

The Carnegie Endowment has further contributed to library interests by providing something over $1,000 worth of books for St. Andrew's University; by helping to complete a set of American law reports and statutes for the Middle Temple of London; by a contribution of $1,500 for the training at Columbia School of Library Service of a member of the reference department of the Deichmanske Bibliotek of Oslo, Norway; and by the contribution of $3,000 toward the expenses of the American delegate to the World Library and Bibliographic Congress in Italy in June, 1930.

JULIUS ROSENWALD FUND

The progress of school libraries in the South has been greatly stimulated by generous donations from the Julius Rosenwald Fund. During the three years since 1927 there have been founded 774 school libraries in 467 counties in 15 States, at a total cost of $93,188, of which amount the fund contributed one-third and also transportation charges and the expenses of librarians to visit and check these libraries. During the same time $60,000 aid has been appropriated to 38 negro colleges and State normal schools to cover one-third the cost of $182,000 worth of books which were purchased after selection by trained librarians.

County libraries have also benefited by the fund. Two counties in each of the 13 Southern States were selected to serve as demonstrations for the other counties of the States. During the past two years more than half a million dollars has been appropriated by the fund and 11 counties have been aided in county library service.

Other appropriations from this fund have been mentioned in another part of this survey, under the heading "Special classes, negroes."

CONCLUSION

The United States Commissioner of Education said recently, "American educators are studying in a scientific and professional spirit the problems of our time. They are shaking off the fetters of tradition." The same might be said at this time of librarians. Instead of allowing their emotions to lead them they are investigating their problems from a scientific standpoint. They are making surveys to determine the reading tastes of their patrons. They are studying their communities to find whether the libraries are serving

all the people all the time. Book collections are being built up in a much more scientific manner than formerly. Discussions at library conferences are concerned with finding out the problems that confront librarians and contriving ways of meeting and solving them. Great foundations, willing to make grants for the promotion of library service, are spending large sums for preliminary studies of existing conditions, to find where the need is greatest in order that help may be applied where it will be of the greatest service. The second half century of organized library activity has begun in a manner that promises great development and the hope that before its close library service will be within the reach of the entire population of the country.

II. A DECADE OF SCHOOL-LIBRARY ACHIEVEMENT

By Edith A. Lathrop

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INTRODUCTION

The past 10 years have been characterized by an awakened appreciation of the importance of school libraries in both the elementary and the secondary school fields.

Nation-wide interest in the importance of libraries for elementary schools was manifest in 1925 by the publication of a report on elementary school-library standards prepared by the committee represented by the department of elementary school principals of the National Education Association and the school libraries section of the American Library Association. This report states that until recently there were no libraries in most public elementary schools. This, it continues, was because the schoolroom procedure of the past was an impoverished procedure so far as social values were concerned.[1]

The growth of secondary schools during the decade has been marked. The number of such schools making reports to the Office of Education increased approximately from 14,000 in 1920 to 22,000 in 1930. The two sources of data on libraries in secondary schools collected by this office are statistics of public, society, and school libraries; and statistics of public high schools. Data from these sources that are available for years falling within the decade are given herewith. Statistics of public, society, and school libraries show that in 1923 the number of schools with libraries of 3,000 volumes or over (most of which are in secondary schools) was 947 in 1923 and 1,982 in 1929. Statistics of public secondary schools housed separately from elementary schools show that in 1926 there were 4,873 libraries in such schools and 5,219 in 1928. The number of volumes in these libraries increased during the 2-year period from 8,050,070 to 9,746,274. While data for the country as a whole are lacking, interest in library facilities for secondary schools has paralleled the development of the schools themselves. This is evidenced by the

[1] Report of the joint committee on elementary school library standards. *In* Bulletin of the Department of Elementary School Principals of the National Education Association. Fourth Yearbook, July, 1925; pp. 326–359.

activities of committees in devising standards for secondary schools and in the discussions given the subject of school libraries in books and other publications pertaining to the administration and function of secondary education.

The director of high schools and high-school departments of the Minnesota State Department of Education says that the most noticeable improvement along the line of school equipment is to be found in the libraries of the schools. They have moved from the small, dark rooms, with a few shelves of musty, tattered, out-of-date books, to well-lighted rooms, lined with standard library shelving, and equipped with tables and chairs. Books are catalogued, and full-time teacher-librarians, with special library training, are in charge.[2]

Library-minded educationists are prophesying a future when the relationship between school and library will be much closer than it is at the present day. The following statements from Doctor Meiklejohn and Dean Russell are characteristic of these prophecies:

In speaking before the North Dakota Library Association, Doctor Meiklejohn said that the time would come when the whole life of the school would be built around the library and that formal instruction would give way to reading directions and suggestions given by the teacher, with the pupil doing his work independently through library books.[3]

Dean Russell, in a paper on Educational Developments and the School Library, says: "It is believed that something new is in the process of creation. For the education of children we have schools. Into these we have introduced libraries. For the education of adults we have libraries. Into these we have introduced schools. This paper suggests that the time may come when there will be neither libraries in schools nor schools in libraries, but a new educational institution will emerge which combines the best features of both."[4]

Interest in libraries has resulted from a more general acceptance on the part of educators of that philosophy of education which regards the school as an institution in which children are intelligently participating in democratic living. In schools permeated by such a philosophy the formal recitation is supplanted by teaching procedures that place emphasis upon knowing where and how to find information rather than memorizing it. The more usual of these procedures are known as individual instruction, supervised study, and the project method.

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[2] Utne, Theodore. Trends in Minnesota Education. Minnesota Journal of Education, 11: 105–106, November, 1930.

[3] Cook, Lillian E. Schools and County Library Service. North Dakota Teacher, January, 1929; p. 23.

[4] Russell, William F. Educational Developments and the School Library. School Library Yearbook No. 2, compiled by the education committee of the American Library Association, 1928; pp. 49–53.

The breakdown of formal instruction has been a factor in bringing the library to the foreground. When children are engaged in solving problems they seek information from many books relating to a subject rather than from a single textbook. This means that either there must be libraries in schools or the schools must have access to public libraries.

Another factor that has brought the library to the foreground is the present interest in adult education. This interest is stimulating adults to make use of books and other printed materials not only for the enrichment of life but to make more efficient the vocations in which they are engaged. The farmer who decides to add bee culture to his farm activities will probably be advised by his county agricultural agent to secure bulletins on the subject from his State or the United States Department of Agriculture. A bond salesman said recently that the present financial depression has sent him to the library for books that will help him understand the causes and results of previous depressions. If the learning process is to continue after leaving school, it is necessary for children to be taught to use and appreciate books and libraries while in school.

The past decade has been significant for the variety of printed materials relating to the subject of school libraries. These have appeared in the form of research studies, books, pamphlets, and magazine and newspaper articles. The number of research studies has been significant. Many are limited in scope, but a considerable number are comprehensive. An illustration of the latter is a publication of the Department of Educational Research, Teachers College, Columbia University, entitled "State Participation in Public-School Library Service," by Frank Hermann Koos. The subjects of the research studies in school-library problems are varied, including children's reading interests, libraries for secondary schools, school library laws, children's book lists, newspaper and magazine reading by children, and library problems of rural schools.

The school-library question is also receiving more or less scientific treatment in educational surveys. An examination of 109 such surveys made during the decade ending with 1930 shows that 70 of them considered the library problem. In most instances discussion of the subject is brief in both the findings and in the recommendations. It is generally pointed out that present library facilities are insufficient and that modern teaching demands adequate library service. There are, however, a few surveys in which the library situation has been treated rather fully. Among these are the Report of the Survey of the Public Schools of Philadelphia, 1921; Public Education in Virginia, 1928; A Preliminary Report of the Survey of the Public Schools and Higher Institutions in the State of

Missouri, published in 1929 in the Eightieth Report of the Public Schools of that State; and Report of the Survey of the Schools of Holyoke, Mass., 1930.

During the decade the amount of space given to school-library activities in reports of State departments of education and of city boards of education has increased. Among reports of the former that contain any considerable amount of discussion on the subject, in addition to statistics for one or more years of the decade, are those from the following States: Arkansas, Louisiana, Minnesota, New York, Utah, Virginia, and Wisconsin. Some examples of the latter are reports from the following cities: Baltimore, Md.; Chanute, Kans.; Cleveland, Ohio; Denver, Colo.; Detroit, Mich.; El Paso, Tex.; Kenosha, Wis.; La Porte, Ind.; New York, N. Y.; Pasadena, Calif.; Portland, Oreg.; Poughkeepsie, N. Y.; St. Louis, Mo.; and San Francisco, Calif.

Other notable contributions to the literature of the subject, published as books, bulletins, and reports, have been made during the decade. The library in elementary and secondary schools has received serious consideration in two books by Lucile F. Fargo, The Program for the Elementary School and The Library in the School; in The Elementary School Library, by William A. King, and in The High School Library, by Hannah Logasa. The education committee of the American Library Association initiated in 1927 the publication of yearbooks, which contain reviews of school-library progress. School Library Experience, by Martha Wilson, is a compilation of selected articles and addresses on subjects relating to school libraries.

Articles dealing with school library problems have appeared frequently in educational and library journals and bulletins and in some newspapers during the decade. Two State educational journals—The North Dakota Teacher and The Texas Outlook—devote space in each issue to school library topics; another, the Western Journal of Education, published in San Francisco, Calif., contains in each issue a "library news department" which gives considerable information on the subject of school libraries. The Library Journal has a section for school library news; and Libraries, a department of school libraries. Bulletin No. 4 of the Department of Elementary School Principals of the National Education Association, published in July, 1930, contains a symposium on school libraries.

Other manifestations of the interests in school libraries are cooperative efforts on the part of educationists and librarians. Joint committees of the American Library Association and the National Education Association have been responsible for the publication of book lists and standards for school libraries. There began in 1930 in

School Life, the official organ of the Office of Education, a series of articles on school library activities in the various States which are produced in cooperation with the American Library Association. Another significant example of cooperation is the 2-week conference of elementary school principals and librarians held at the University of Washington during the summer of 1927 for the purpose of studying the aims and possibilities of the elementary school library.

ADMINISTRATIVE CONTROL

Since the public library and the school are recognized as dual agencies for effecting public education, there is a growing tendency for them to cooperate in providing library service for schools. The reasons for such cooperation are well expressed in the following statement from the Library in the School (pp. 387, 388), by Lucile F. Fargo:

> When the demand for school library service first arose there was a general impression that the school was being well cared for if the public library furnished it with a small collection of books, or in effect operated a school deposit station. The books were chiefly literary or recreational in character, and if the school felt the need of a few reference titles it bought them itself. These raised no real administrative problem, for they were too few. As the demand for books grew, the school offered to take a larger part in financing and the public library widened its activities to include more personal service until what had started as a bit of library extension evolved as a rule in one of two ways: It either grew into a cooperative plan for school library service, or the public library dropped out, leaving the school to assume full control.

Responsibility for administrative control of the functions which are carried on jointly by school and library are assumed in some instances by the public library and in others by the school. There are, of course, a variety of combinations of the two situations. The plans may differ for different types of schools within a single school district. There are, for instance, school districts in which control of library service for elementary schools is vested in the public library board; and that for secondary schools in the school board.

Control of school libraries by public libraries.—Buffalo, N. Y.; Cleveland, Ohio; Grand Rapids, Mich.; Pittsburgh, Pa.; Seattle, Wash.; St. Paul, Minn.; and Washington, D. C., are examples of cities in which the administrative control of school libraries is with public library boards; so also are school districts located in California counties having county library service and transferring their school district funds to county libraries in exchange for service. The details of the types of service in Cleveland, Grand Rapids, and Pittsburgh are described briefly in the following paragraphs:

In Cleveland the administration of school libraries is vested with the director of the school department of the Cleveland Public

Library. The board of education furnishes space, heat, and light for school libraries, and, in addition, all reference books and many circulating books for the senior and junior high schools. Each senior and junior high school librarian has two budgets for books: One from the board of education and the other from the public library. General supplementary material and all reference books are bought with board of education funds. The library provides recreational reading and books correlating with the school curricula. The public-library board furnishes all elementary-school libraries with equipment and books, as they are to some extent community libraries, and furnishes classroom collections to elementary schools without libraries. With a few exceptions the public library pays the salaries of all the school librarians and other members of the department.

An agreement entered into between the public library and the school board in Grand Rapids, Mich., provides that whenever the library board requests and the school board agrees the school board will equip a room for library purposes in one of the school buildings, the school board to supply the heat, light, and janitor service and the library board the books, periodicals, card catalogue, and the librarian, besides conducting story hours and courses of free lectures for children and adults in the school building.

The following résumé of the cooperative plan of administration of school libraries in Pittsburgh is found in the January–February, 1930, issue of Curriculum Study and Educational Research Bulletin, published by the board of public education in Pittsburgh.

The professional policy and methods used in providing library service for schools are under the direction of the Carnegie Library of Pittsburgh, subject to the approval of the superintendent of schools. The expense is apportioned between the schools and the library. The library provides the service to which the schools are entitled in common with other members of the community, and the board of education meets the expense of any special service which is not available to the community in general. Suitable rooms for library purposes, together with heat, light, and janitor service, are provided by the board of education in each high school and platoon school of the city and in such other buildings of the school system as may be agreed upon by the board and the library. Equipment of the library rooms, such as shelves, desks, tables, and filing cases, is selected with the approval of the library and furnished by the school board. Selection of books is made by the school librarian under the direction of the principal of the school, subject to the approval of the library.

Control of school libraries by boards of education.—When the school board has administrative control of centralized school library service under a division of school libraries the supervisor of libraries is employed and paid by the school board, if there is such a supervisor. In general, this official has charge of the administration of school library activities, selects librarians, and expends school funds allotted for library books.

The city and county of Denver, Colo., which are coterminous, is an example of a school district in which a school library supervisor is appointed and paid by the school board and ranks on a par with other supervisors in the school system. In this district the chief activities of this official are the approval of plans and equipment for all libraries included in the erection of new school buildings, selection of school librarians, approval of all library supplies requested by school principals, direction of the purchase of library books paid for by school funds. She is a member of the curriculum revision committees, cooperates with the public library in its service to schools, and administers the professional library for teachers.

Conclusions.—From the arguments for and against school and public library control of school libraries the conclusion is drawn that local conditions determine the desirability of one form of control over that of another. The recommendations in the educational surveys examined show no decided trend for either form of control. Sometimes the recommendation is indefinite, as in the example of one survey that stated that since the superintendent of schools and the president of the board of education are members of the public library board a relationship exists between the two bodies that should produce satisfactory results for the school system.

Dean William F. Russell, in his study of the school library situation in 20 cities of the United States, concludes that where the library is controlled by the board of education the standards for training and experience of librarians and their salaries are more nearly equal to those of teachers than in places where school library control is with the public library board. When the library board is in control, he says, requirements are higher but pay is lower.[5]

In summing up the advantages and disadvantages, Miss Fargo is again quoted:

> It is evident to anyone comparing the advantages claimed for each form of administration that some on each side are based on wrong assumptions. For example, when the public library claims better service because provided by experts it assumes that the school district will not employ professionally trained librarians. Unfortunately many large school districts do not, and small com-

[5] Russell, W. F. The School Library Situation. School and Society, 24: 113–118. July 24 1926.

munities perhaps can not. On the other hand, we are aware of plenty of remarkable examples of expert service given by professionally trained librarians in independent school libraries or in systems managed independently of the public library.

On the other side the claim that the school directed library gets better correlated service assumes that the public library will not place direction in the hands of a competent personnel—that is, a personnel that knows both the school side and the library side. Again we have plenty of shining examples to prove that this is a mistaken idea.[6]

FINANCIAL SUPPORT

An examination of the literature relating to financial support for school libraries shows that while there is a growing tendency to increase such appropriations from public funds the practice of raising funds for such purposes from private sources is still common. This practice is general and is not confined to any particular types of schools, according to the following extracts from reports of educational surveys and superintendents of schools:

In 1927 patriotic organizations in Everett, Mass., raised $1,100 for new books. Parent-teacher associations in Baltimore, Md., El Paso, Tex., Pasadena, Calif., and other cities have made generous donations to assist the schools in building up their libraries. In 1927 the pupils in the public schools of Owensville, Ky., raised $1,200 for the library through a special drive. Practically all of the public-school libraries in Virginia are largely dependent for their income upon student activities, according to a survey published in 1928. Entertainments are the usual means of raising money for libraries in one and two room schools in West Virginia.

The library, more than any other activity of the school, must frequently depend upon sources outside the school for financial support. This is partly due to the fact that the library is not yet universally accepted as a necessary adjunct of the school. Many schools—particularly the smaller ones—can be found that make no use of libraries. Another reason is that the laws in a number of States encourage the acceptance of funds from private sources as a condition for receiving public funds for the support of libraries. For example, the laws of Louisiana, South Carolina, and Tennessee state that money raised to supplement State, county, and school district appropriations for school libraries shall be raised "by taxation or otherwise"; while in North Carolina and Virginia the laws specifically state that it shall be raised by "private subscription."

The subject of financial support for school libraries is a fertile field for research. It is difficult to find specific information on the sub-

[6] Fargo, Lucile F. The Library in the School, p. 392.

ject. School districts frequently report receipts and expenditures for libraries under "auxiliary agencies" in such a way that there is no way of determining the amounts allotted to libraries. Likewise, it is practically impossible to secure data on such subjects as the percentage of total school expenditures appropriated for libraries and the details relating to the proportionate amounts of school library appropriations that are set aside for salaries, books, supplies, etc.

The survey of libraries of the United States,[7] conducted by the American Library Association and published in 1927, throws some light on the subject. The information in the section of this study relating to school libraries is based upon data from libraries maintained and administered by public schools. The following paragraphs show what the study revealed concerning appropriations for libraries, the relation between expenditures for the library and the total income and enrollment of the school, and the relation between the amounts paid for salaries and the amounts paid for books, periodicals, and maintenance.

Of the public schools reporting, probably less than half make a definite appropriation each year for the library; among the schools having fewer than 500 pupils the percentage is much lower—probably not more than 30 or 35 per cent. Among the larger schools represented by enrollments of 1,500 or more pupils the percentage is 75 or 80.

Because of the many uncertainties involved in the replies concerning appropriations and expenditures for the library, and because of scanty or approximate statements concerning school enrollment and total school income, no definite data can be presented concerning the relation between the library's expenditures and the school income or enrollment. A tabulation of the replies from 27 public-school libraries shows an average expenditure for the library of three-tenths of 1 per cent of the total income. Only three of these libraries report as high as 1 per cent; the variation is from 0.09 per cent to 1.8 per cent. The average per capita expenditure for the library is 73 cents for each pupil enrolled; the range is from 6 cents to $3.

The data concerning the relation between the amounts paid for salaries in the library and the amounts paid for books, periodicals, and maintenance are equally inconclusive. Reports from 21 schools with enrollments ranging from 500 to 1,000 pupils show that the salaries averaged 69.6 per cent of the total amount spent for the library; reports from 16 schools with enrollments between 1,000 and

[7] American Library Association Survey of Libraries in the United States, 3: 271–286, 1927.

1,500 show an average of 63.8 per cent; reports from 25 schools with enrollments greater than 1,500 show an average of 72.7 per cent.

Recommendations relative to the manner of ascertaining the amounts that schools should spend annually for school libraries vary. The most common method is to base it upon the number of pupils enrolled in the school. The Philadelphia survey recommends $1 per pupil for high schools. The Missouri survey states that every school district should spend not less than 50 cents per pupil annually for books other than textbooks, with authority to pool these funds through the county library. Others believe that budget allowances for the library should represent a percentage basis of the total school budget exclusive of capital outlay.

PRINTED MATERIAL AND VISUAL AIDS

During the decade there has been a change in the character of books demanded by school libraries; school use of pamphlet and periodical material has increased; and, because of the demand on the part of the schools for visual aids, libraries have developed collections of pictures, films, and slides.

Survey reports in describing the kinds of books found in some school libraries use such phrases as these: "Suited to the needs of the schools a generation ago"; "Present books are used comparatively little"; "Not adapted to the needs of the pupils." In selecting books for school libraries emphasis is continually placed upon books that meet the needs of the curriculum. This has resulted in an increased demand for reference and nonfiction books. The growing use of pamphlet and magazine material is the direct result of a curriculum that encourages children to work out problems relating to present-day situations. Information on current topics must generally be secured from periodicals, as it is frequently too new to have appeared in book form.

Book lists.—Interest in school libraries has stimulated requests for book lists. The number of school library book lists issued within recent years has increased. On the whole great care is exercised in the preparation of such lists on the basis of the reading interests of the children themselves. Teachers and librarians are cooperating in this project as never before.

An innovation in children's book lists appeared during the decade in the publication in 1925 of Children's Reading, by Lewis M. Terman and Margaret Lima, published by D. Appleton & Co., New York; and Winnetka Graded Book List, by Carleton Washburne and Mabel Vogel, published in 1926 by the American Library Association. Both of these lists are based upon research studies of children's

reading giving special attention to such individual conditions as age, sex, intelligence, and children's reading interests.

Recent curriculum developments have greatly augmented the lists of books necessary for developing the various units of organizations found in the courses of study. Modern courses of study are conspicuous for such lists. In schools in which the use of textbooks is reduced to the minimum, lists of books are issued for each unit of work.

A book list which represents the cooperative efforts of educators and librarians is the Graded List of Books for Children, which was prepared jointly by the American Library Association and the National Education Association, and published in 1922 by the former. In 1930 it was revised by Nora Beust under the direction of a committee of the American Library Association.

The voluntary reading of children has been a favorite subject for investigation during the decade. An examination of 113 studies pertaining to problems relating to the school library shows that 71 are on the reading interests of children. Many are limited in scope, but they show an interesting trend. It is quite probable that in the selection of books for future school library lists much more consideration will be given to children's likes and dislikes.

One interesting study of the reading tastes of young people is based upon an analysis of 46,328 titles of books submitted by 2,236 senior high-school students in Pittsburgh in 1929. These students were asked to tell which books they had read and enjoyed since entering high school; also which books they had read but *not* enjoyed. It was explained that the books need not be confined to those listed in the Pittsburgh high-school lists. Some of the results shown by the study were that 90 per cent of all the books enjoyed were those that might be found in any high-school library; that the students enjoyed fiction, but had the capacity of enjoying other literature as well; and that there was a surprising unanimity of opinion among brilliant, average, and dull pupils as to preferences. The Tale of Two Cities was the most popular book.[8]

The following recommendation of the committee on children's reading of the section on Youth Outside of Home and School of the White House Conference on Child Health and Protection is pertinent at this point:

> Scientific studies should be made by persons equipped by training and experience of the reading preferences of children, of the influence of reading on character, of the place of books, reading, and libraries in the teaching process, and of the individual and social factors which affect the wise use of books by children.

[8] What Pittsburgh High-school Seniors Read. School Betterment Studies, Vol. 2, No. 1. Henry C. Frick Educational Commission, Pittsburgh, Pa. 83 p.

LIBRARY ROOMS

In discussing Building Standards for School Libraries, Doctor Engelhardt says that the school building codes of several States require that library rooms be provided in all school buildings. He calls attention to the following standards for library rooms found in the Strayer and Engelhardt Standards for High School Buildings:

The library reading room should be located in a central position with respect to all the classroom activities of a school. It may adjoin study halls and be directly connected with the study halls.

A librarian's workroom should adjoin the reading room. If it is impossible to have a separate room, a portion of the stack room may be used for this purpose. If all of the activities of the library are carried on in the reading room, provision must be made there for the librarian's work.

A library classroom should be provided adjacent to the reading room for the purpose of illustrative lecturing.

In very large schools a library stack room is necessary.[9]

According to reports of educational and library surveys, conditions regarding library rooms are far from satisfactory, but a decided tendency can be seen toward the desired goal. In a comparatively large number of educational survey reports school buildings are scored by the Strayer-Engelhardt score cards; and generally the scores on library rooms are very much below standard.

All but 18 of the 138 public-school libraries studied by the American Library Association in its survey of libraries in the United States published in 1927 report separate rooms used only for library purposes. In these 18 the library is combined with the study hall—a practice which is more common, the replies indicate, in the smaller schools. In some of the smaller schools the library is stored in any room where space can be found for it. Of the libraries which occupy separate rooms approximately one-half have in addition small rooms which can be used for work rooms or storage purposes.

A survey of California junior and senior high school libraries reported in School Library Yearbook No. 3, published by the American Library Association in 1929, shows the situation in that State. The total number of junior high schools reporting was 57; of this number it is assumed that 50 had separate rooms for their libraries, for this was the number reporting seating capacity; 37 reported office or work rooms. All but 6 of 254 senior high schools reporting have libraries, but it may be assumed, says the report, that many not reporting either have no libraries or inadequate ones. The number of senior high-school libraries with office or work rooms is 93.

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[9] Englehardt, Fred. Public School Organization and Administration, pp. 407–410.

The library in the Theodore Roosevelt High School in New York City, which was opened in 1928, is an example of a well-planned school library. It has a large reading room accommodating 250 pupils, a library classroom, a teachers' reference alcove, and a stack room.

Among recent advances in the school library situation in Pennsylvania is the large increase in the number of library rooms in plans submitted for new buildings, for both large and small schools, to the School Buildings Bureau of the State Department of Public Instruction. This bureau is also active in securing provision for library space in school buildings where the plans submitted do not include them.[10]

Elementary schools in the larger towns and cities are gradually providing rooms for libraries, according to reports from superintendents of schools. In Atlanta, Baltimore, Detroit, and Pittsburgh the platoon schools have put new emphasis upon libraries. Eighty-four per cent of the elementary schools in Balitmore (both white and colored) have libraries—nine have special library rooms and other classrooms; and all future building will provide rooms for libraries. There are 85 elementary schools in Detroit with libraries, and 84 in Pittsburgh. El Paso, Tex., reports that a few schools have special library rooms. In New York City classroom libraries are gradually being abandoned in elementary schools and large central library rooms provided. Poughkeepsie, N. Y., reports that grade-school libraries are being developed in all of the larger buildings. In Stamford, Conn., special rooms in elementary schools are set aside for libraries.

THE SCHOOL LIBRARIAN

The development of the library in the school has created a demand for trained librarians. In the secondary-school field the situation has been accelerated by the library standards adopted by agencies (both State and regional) accrediting such schools. These standards virtually require that all except the smaller secondary schools employ as librarians persons who have had at least one year of library training. In the elementary-school field, especially in the cities, the increase in the number of platoon schools has stimulated a demand for teachers with at least some library training.

From such information as is available it appears that many school librarians still fall far short of having the training desired. One of the deductions of the survey of high schools in California is that the training of the librarian is more disheartening than any other one

[10] School Library Progress in 1929. *In* School Library Yearbook No. 3, compiled by the education committee of the American Library Association, 1929. P. 47.

item studied. Fourteen of the 57 junior high schools reporting stated that their librarians had no training; in 14 other cases the librarians had only summer-course training. Twenty-four librarians had taken a 1-year course and four a 2-year course. In the senior high schools 58 per cent of the persons in charge of libraries in small schools had not had so much as a summer course in library training. The larger schools were not above criticism in this respect. Two schools with enrollments of more than 2,000 had no trained librarians.

The difficulty in securing trained library assistants for high schools in New York City can be appreciated by the fact that in a recent examination held by the board of examiners for library assistants in high schools an eligible list of three was produced, two of whom refused to accept appointments. The regents of the State of New York adopted a regulation in February, 1928, to the effect that by July 1, 1930, high schools should employ one library assistant for each thousand pupils. To comply with the regulations 53 additional library assistants were required in New York City alone in 1930.[11]

Training of librarians.—The increasing need of the schools for trained librarians has made heavy demands upon the library schools. Miss Fargo says that the coming of the school library has had much to do with the increase in the number of library schools during the past five years; there are now 18 accredited library schools, nearly all of which offer special courses for school librarians.[12] Twenty-seven different institutions in the South had a total of 1,258 students registered in school library courses in the summer of 1930. Hampton Library School offered courses for the first time in school library work.[13] Summer courses especially designed to increase the available supply of teacher-librarians were offered by the teacher-training institutions in Louisiana in 1930.

The nature of the training for school librarians is a subject upon which there is much discussion. Russell finds, in his study of school libraries, reported in 1926, that there seems to be no general agreement on the subject. School superintendents, he reports, say that school librarians need much training in education and a reasonable amount in library science. He anticipates that librarians will say that such persons need much training in library science and a little in education, and concludes that the properly trained school librarian must have all that the good teacher has and in addition library training.

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[11] Leland, Claude G. School Libraries. *In* Thirty-first Annual Report of the Superintendent of Schools to the Board of Education of the City of New York. Year ending July 31, 1929; pp. 166–170.

[12] Fargo, Lucile F. School Libraries in the United States. Peabody Journal of Education, 8: 237, January, 1931.

[13] Barker, Tommie Dora. Libraries in the South. Library Journal, 56: 165–169, February 15, 1931.

The board of education for librarianship, in its report for 1929–30, concludes that the question of how and where the school librarian should receive professional training is an open one and must remain so until the success of school librarians in service has demonstrated the superiority of one form of training over that of another. The board believes that the curriculum for school librarians should be broad and general enough to provide a background for other forms of library service, and should be specialized to the extent of providing knowledge and skill equal to meeting the problems of the school situation. It bases its conclusions on discussions with educators and school librarians and those engaged in the training of both full-time and part-time school librarians, and assistance given to library schools and teachers colleges in planning curricula which meet both general and local requirements.[14]

Duties of librarians.—Reports of the duties of school librarians have revealed the fact that there is a tendency to impose extra duties upon school librarians even upon those who have been employed presumably as full-time librarians. Teacher-librarians are expected to give part time to teaching and part time to library duties, but the tendency is, in many cases, for the teaching duties to infringe upon the time allotted to library duties.

In the survey made by the American Library Association it was found that in most of the schools of fewer than 100 pupils the position of librarian is held by a teacher (usually the English teacher); sometimes students take charge of the library. Of 13 replies from schools with enrollments between 100 and 500, only four state that the librarian gives full time to the work. Some of the schools with enrollments over 500 report that the care of the library is combined with supervision of the study hall or advisory work in extracurricular activities.

The California survey of junior high school libraries shows that frequently librarians employed on full time should be classed as teacher-librarians, for they often teach from one-third to one-half of the school day, have charge of home rooms part of the time or serve as secretaries to the principals.

The State supervisor of school libraries in the Wisconsin State Department of Education reports, in the November, 1930, issue of School Life, that teacher-librarians are in a large number of cases teachers rather than librarians. Very often they teach the greater portion of the day. They coach debating teams, drill glee clubs, and perform other extracurricular duties. He cites one case in which a teacher-librarian in a high school with an enrollment of 225 pupils

[14] Sixth Annual Report of the Board of Education for Librarianship. American Library Association, Chicago, 1929–30, p. 14.

teaches during six of the eight periods of the day, is custodian of all of the textbooks for the high school and for the grades, and is mentor for two literary societies.

LIBRARY INSTRUCTION AND READING GUIDANCE

Instruction in the use of libraries and books.—Much emphasis has been placed upon instruction in the use of libraries and books, and a number of special courses on the subject have been published for the use of teachers and pupils. In some schools these courses are taught as separate subjects; in others they form a part of some other course—usually English, and are generally given by teachers or by librarians. Public libraries are cooperating with the schools by having members of their staffs give courses on the subject to groups of school children who are sent to the libraries for that purpose. Such instruction was formerly confined largely to children of high-school level, but is now begun more generally in the elementary grades.

A review of the available subjects of research studies on school libraries made during the decade shows only two that relate to instruction in the use of libraries and books. Both of these were made in 1929 and are unpublished masters' theses—one from Johns Hopkins University and the other from the University of Pittsburgh. Summarizations of both follow.

The problem for experimentation in the Johns Hopkins study was to measure and compare the effect of instruction in the use of the library upon 80 fifth and 80 sixth grade pupils in the Canton Platoon School in Baltimore in connection with the library material used in the development of units of work in history and in geography.

The results of the study showed that the experimental groups far exceeded the control groups in the library skills test; that in general the history and geography attainments of the experimental groups exceeded those of the control groups in spite of the fact that the control groups studied history and geography while the experimental groups studied library skills; that the experimental groups read more than twice as many history and geography books as the control groups; and that they visited the library more frequently after school hours.

One important by-product of this study was the development of a library skills test by the experimenter in cooperation with one of the professors in Johns Hopkins University. This was necessary because a survey of the field of educational tests revealed no standard tests specifically designed to measure library skills in the intermediate

grades. Several revisions of this test have been made by the experimenter since the study was completed.[15]

The University of Pittsburgh study was an investigation into the provisions made by librarians and schools for teaching skill in effective use of the materials of reading. Some important conclusions of this study are that provisions for guidance in the use of books seem rather well outlined for students in secondary schools and are being extended into elementary schools; that classroom teachers and librarians working together seem to have a joint responsibility in helping pupils gain ease and efficiency in the independent use of informational reading materials and that fundamental reading and study skills may best be developed by classroom teachers, and specific reference skills by librarians.[16]

City boards of education, State departments of education, higher institutions of learning, and public libraries have published pamphlets containing courses of instruction on the use of the library. Some of the cities, in which boards of education have published such courses, are Cleveland, Denver, Detroit, New York City, and San Antonio. There has been considerable demand for the two monographs on library instruction—one for the use of the elementary school and the other for the junior and senior high school—published in 1929 by the Denver public schools. Among State departments of education publishing similar courses are those from Connecticut, Pennsylvania, Massachusetts, Minnesota, and Wisconsin. The extension division of the University of North Carolina published in 1928 a bulletin entitled "High School Library Standards," which outlines a course of instruction on the use of the library. A pamphlet describing the plan of library instruction in Los Angeles was issued by the Los Angeles Public Library in 1926.

Other valuable publications on teaching the use of books and libraries to children of elementary and secondary school levels follow.

Brown, Zaidee. The Library Key. H. W. Wilson Co., New York, 1928. Price, 70 cents.

High-school students who have had no systematic instruction in the use of the library may learn to work independently and intelligently in their own libraries through the aid of this manual.

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[15] Johnson, Helen M. What effect does the use of the library as a cooperating agency have upon the pupils at the Canton Platoon School? Master's Thesis, Johns Hopkins University, Baltimore, 1929. Unpublished.

[16] Adams, Mary H. Instruction in the care and use of books. A joint responsibility of teacher and librarian. Master's Thesis, 1929. University of Pittsburgh, Pittsburgh, Pa. Unpublished.

Broening, Angela M., and Wilkinson, Mary S. Adventures in the Library—Magic Keys to Books. Copyright, 1929, by the department of education and the Enoch Pratt Free Library, Baltimore. Prices: Grade 4, 20 cents; grade 7, 25 cents.

This is a graded series of booklets containing lesson materials on the use of libraries that are being developed by the Baltimore public schools in cooperation with the Enoch Pratt Library. The booklets will eventually be prepared for the use of pupils in grades 1 to 12, inclusive. At the present time two have been published—one for grade 4 and the other for grade 7.

Ingles, May, and McCague, Anna. Teaching the Use of the Library. H. W. Wilson Co., New York, 1930. Price, $1.80.

A manual designed especially for librarians and teachers giving instruction to high and normal school students. Though it is designed especially for use with the students' textbook, The Library Key, by Zaidee Brown, it is also adapted for use in schools in which no textbook is provided for library instruction.

Scripture, Elizabeth, and Grier, Margaret. Find It Yourself. H. W. Wilson Co., New York, 1928. Price, 50 cents.

A brief course designed especially for the use of librarians who must carry on library routine and conduct classes in library instruction at the same time.

Ward, Gilbert O. The Practical Use of Books and Libraries. Fourth edition, revised and enlarged. F. W. Faxon Co., Boston, 1926. Price, $2.

Provides elementary instruction for high-school students who do not know how to use books and libraries, and serves as an outline for teachers or librarians who must give such instruction.

Reading guidance.—One of the results of the establishment of libraries in schools and of the cooperation between public libraries and schools is an increased interest on the part of librarians and teachers in stimulating the interests of children not only in reading but in reading literature that is worth while. The establishment of free reading periods, story hours, book clubs, and the observance of Book Week, are some of the methods used for this purpose. Many examples can be cited from reports of State departments of education and city boards of education showing how schools and libraries in various parts of the country are utilizing these and other methods.

Guidance in recreational reading forms an important part of school and public library programs in Boston, Mass.; Cleveland, Ohio; Manchester, N. H.; Plymouth, Mass.; St. Louis, Mo.; and some other cities. Browsing tables, story telling, the awarding of certificates to children reading a specified number of books, and hours specifically set aside at public libraries for school children are some of the methods used to stimulate reading for pleasure.

An important investigation was conducted in this field in 1926 by William F. Rasche, under the direction of Dean W. S. Gray, of the University of Chicago, upon the request of Carl H. Milam, secretary of the American Library Association. Descriptions of methods and devices used by teachers and librarians in stimulating reading interests and in elevating the reading tastes of children were received from teachers and librarians in 33 States and the District of Columbia. One hundred and ten "master methods" were identified from the data submitted. Some of these were providing browsing corners, allowing pupils freedom of choice in selecting books, encouraging the organization of reading clubs, assigning studies in current events, requiring reading that is correlated with content subjects, preparing displays of books and magazines, inviting parental cooperation, and scheduling story-telling periods.

One important conclusion of this study is that the effectiveness of the efforts put forth by teachers and librarians will be greatly enhanced whenever public administrators make available (*a*) greater physical and material resources in all schools and libraries, and (*b*) the services of competent research specialists in the larger centers to carry on experimental studies which will improve instructional and library techniques. [17]

LEGISLATION AND STANDARDS

Legislation.—Legislation has stimulated the development of school library service by providing for the consolidation of State educational and library agencies, increased funds for the support of school library service, and improved standards for the certification of librarians.

One State—Arkansas—created in 1921 by legislative enactment a free library service bureau in its department of education. In 1923 State library agencies in Pennsylvania and Vermont were placed under the supervision of departments of education. Traveling library service in Tennessee was transferred from the State library to the department of education in 1925. The State library of California became a division of the State department of education in 1927 by legislative enactment. In 1929 the Washington Legislature consolidated with its department of education the State library and the traveling library service.

Two States—Alabama and Virginia—have increased their annual State appropriations to aid school districts in purchasing library books. In Alabama this amount grew from $6,700 to $25,000, and in Virginia from $3,000 to $15,000. The New York Legislature of

[17] Rasche, William F. Methods Employed to Stimulate Interests in Reading. School Review, 37: 29–36; 124–131; 204–214; 293–303, January–April, 1929.

1929 abolished its special grant for school libraries, but its reapportionment act extending more liberal State aid to rural schools has stimulated the purchase of library books in such schools, because library needs are considered as a part of the entire program of equipment and instruction.

The Legislatures of Kansas and Nebraska in 1925 and 1929, respectively, passed laws providing minimum expenditures for libraries of $5 for each teacher employed in public-school districts. School districts in Iowa have been required since 1927 to set aside annually for the purchase of school library books 15 cents for each person of school age; according to the former law, the amount was a minimum of 5 cents and a maximum of 15 cents. The 1929 Legislature of Pennsylvania gave school directors of second-class districts power to levy special library taxes annually, of not exceeding 1 mill on the assessed value of the taxable property in the districts, for the support of free public libraries located in the municipalities in which the school districts are located. In Wisconsin the maximum yearly grant authorized by the statute for school libraries for each person of school age residing in towns, villages, and cities of the fourth class was increased during the decade from 10 to 20 cents.

Only a few States have laws providing for the certification of librarians and the majority of these were passed during the decade ending 1930. In 1925 the California Legislature enacted a law requiring high-school librarians to hold high-school certificates or special teachers' certificates in library craft; and the special certificate law of Minnesota was amended to include school librarians. The New York laws authorize the State board of regents to prescribe the professional and educational qualifications of school librarians. While these qualifications were for the greater part of the decade much lower than similar requirements for teachers' certificates, they have done much to standardize and improve library service in the schools. The requirements were raised in 1930.[18]

Standards.—The decade has been conspicuous for the adoption and strengthening of school library standards. A number of these standards are based upon two reports published by the American Library Association and popularly known as the "Certain standards" because the chairman of each of the joint committees responsible for them is C. C. Certain, of Detroit, Mich. One of the reports is Standard Library Organization and Equipment for Secondary Schools of Different Sizes, which was published in 1920 and is the report of a joint committee of the National Education Association and the North Central Association of Colleges and Secondary Schools. The other,

[18] Tolman, Frank L., Director, Library Extension Division. *In* 26th Annual Report of the Education Department of the University of the State of New York, 1930, p. 303.

Elementary School Library Standards, was published in 1925 and is a report of a joint committee of the American Library Association and the National Education Association.

Library activities of the regional associations for accrediting high schools have been concerned with the adoption and revision of standards and with the promotion of library studies. The Association of the Colleges and Secondary Schools of the Southern States adopted library standards for the first time in 1927—to become effective in 1930 (with three years of grace—1933). This has greatly stimulated the development of libraries in the high schools of the South. One thousand one hundred high schools had met the standards in 1930.

In 1928 the Northwest Association of Secondary and Higher Schools appointed a committee to recommend standards for libraries. The Commission on Secondary Schools of the Association of Colleges and Secondary Schools of the Middle States and Maryland has initiated a series of studies by special committees—one of which is on school libraries; this commission functions as a fact-finding and rating agency and as a clearing house of information for the association.

Library standards of the North Central Association of Colleges and Secondary Schools have been revised several times during the decade. With each revision the standards have become more definite. In 1920 the requirement was that library facilities must be adequate to the needs of instruction in the subjects taught. In 1921 the following supplementary sentence was added: "The association recommends the appointment of a trained librarian for each high school employing 10 or more teachers." Again, in 1924, a statement was added to the effect that the library should be classified and catalogued; in 1927 "should" was changed to "shall." [19]

In 1928 the North Central Association's special committee on libraries published in the September issue of the North Central Association Quarterly a report of its survey of libraries in high schools belonging to the association. It is stated in the report that the greatest value of the survey is the opportunity afforded principals of diagnosing and remedying the weaknesses of their own school libraries by comparison with the average for schools of their own size. One of the recommendations of this survey was that quantitative library standards for secondary schools be prepared. As a means of arriving at these standards principals of 2,242 high schools belonging to the association were asked to vote on such items as number, train-

[19] Davis, C. O. Changes in the Standards for Accrediting Secondary Schools Made by the North Central Association of Colleges and Secondary Schools During 27 Years. *In* North Central Association Quarterly, 4: 331, December, 1929.

ing, and pay of libarians, number of volumes per pupil, library seats per pupil, enrollment, and annual costs for books. The results of the vote were published in the June 1, 1930, issue of the Library Journal.

The conclusion of the American Library Association's survey of libraries in the United States regarding the question of legislation and standards for school libraries is that the whole question is, in most States, in a rather chaotic but happily transitional stage and that much further study of the subject is desirable.[20]

PROGRESS IN RURAL SCHOOLS

Rural schools have shared in the general awakening in school libraries that has been so marked during the decade. Since the need for adequate library service is, in most instances, more acute in rural than in city schools, special discussion is given this phase of the problem. Both educational and library surveys show that in general library facilities for rural schools score much lower than those for city schools. Some conception of rural school library conditions is shown in the following summarizations of statements found in educational and library surveys. The visitor to small rural schools in Florida is disturbed by the absence of libraries.[21] The number, quality, and condition of books in the libraries of 1-teacher schools in selected areas in Iowa presented one of the most serious drawbacks of such schools.[22] As a rule, the supply of books in the libraries of small rural schools in Missouri is totally inadequate.[23] Similar conditions are reported in State educational and library surveys made during the decade in South Dakota, New York, Texas, Virginia, and West Virginia.

Many rural schools can not rely upon the assistance of public libraries because of the lack of such libraries. A library survey made in 1926 by the American Library Association shows that 83 per cent of the entire rural population of the United States was without public library service; and that of the 3,065 counties in the United States, 1,135 counties, representing every State except the New England States, Delaware, Iowa, New Jersey, and New York,[24] had no public libraries within their borders.

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[20] American Library Association. A Survey of Libraries in the United States, Vol. 3, p. 307.

[21] Educational Survey Commission and Survey Staff Report to the Legislature, State of Florida, 1929, p. 281.

[22] Baldwin, Bird T., Fillmore, Abigail; and Hadley, Lora. *In* Farm Children, p. 93. New York, D. Appleton & Co., 1930.

[23] Eightieth Report of the Public Schools of the State of Missouri for the School Year Ending June 30, 1929, Parts 1 and 2. Issued by Charles A. Lee, State Superintendent of Public Schools, Jefferson City, Mo., p. 113.

[24] Library Extension. A Study of Public Library Conditions and Needs by the Committee on Library Extension of the American Library Association, Chicago, 1926, p. 11 and (Table 2) pp. (126–127).

There are no doubt some rural schools in every State in which a considerable number of well-selected library books are to be found. There are also a few States, like Minnesota, New York, Oregon, and Wisconsin, in which collections of well-chosen books are found quite generally in the rural schools. These are States in which one or more of the following conditions prevail: Public funds have been appropriated for school libraries for a considerable period of years, books are required to be chosen from well-selected lists, State supervision of libraries is provided and teachers are required to have some training in library technique. At the present time a number of States are putting forth an effort to build up libraries in their small rural schools.

On the other hand, there is strong sentiment in some localities to discourage building up individual libraries in small rural schools except in special instances. It is argued that school district libraries are at the best inefficient and wasteful because the districts are usually not able financally to purchase all of the books that the schools should have and that local and State library supervision is lacking. Virginia is a State in which an effort is being made to purchase library books for schools through the stimulus of State financial aid. In discussing this situation the 1928 report of the educational survey of that State shows that there is great loss of books from year to year in the schools. This is accounted for by the fact that in most of the schools there is little definite responsibility for the care of books and that there are no persons on the teaching staffs who have even the rudiments of library training.[25]

It is generally agreed by those who have given thought to the administration of libraries for rural schools that some plan of circulating books among the schools of a local civil administrative unit—township or county—provides a medium whereby each school may have access to many more books than would be possible if it depended upon its own book collection. The most common ways of providing books by this means for schools are by circulating them from the offices of county superintendents of schools or by cooperative arrangements with public libraries. There is some increase in the number of counties in which library books are circulated from the offices of county superintendents of schools, particularly in Alabama, Arizona, Illinois, and Washington. For the United States as a whole this service is limited.

County library service to schools.—The county library has proven itself to be the most satisfactory means of circulating books among

[25] Public Education in Virginia. Report to the Educational Commission of Virginia of a Survey of the Public Educational System of the State. Davis Bottom, Superintendent of Public Printing, Richmond, 1928, p. 450.

rural schools. It not only supplies schools with large numbers of books, but in addition provides library supervision. It has been widely recommended in recent years by State educational and library agencies, educational and library associations, and educational surveys. The following recommendation found in the Missouri educational survey is representative of the attitude of educators toward the county library as a medium for providing efficient library service for schools.

> The only completely successful plan for providing rural and village schools with library service is the plan of county public libraries, with a strong library agency at the State capital to coordinate and supplement them. The county library at its best includes cities and towns, but in many successful county plans the larger cities remain independent. Large cities and very large schools may easily develop school libraries of their own, but the rural school needs the county library.[26]

There are about 300 county libraries in the United States. This number is not large when it is remembered that the total number of counties in the United States is approximately 3,000. Articles relating to the service of county libraries to schools have appeared in educational and library journals and in several farm journals. School Life, the official organ of the Office of Education, published during the years 1928 to 1930 a series of articles, written by county librarians themselves or by members of their staffs showing the service county libraries give schools. Because of the demand for issues of School Life containing these articles, a representative number of them were published by the office in pamphlet form.[27]

Two members of the California State Department of Education made a survey of two comparable counties—one with county library service and one without. The survey showed that the schools having county library service had received a return many times in excess of what they would have received had they depended on their own funds. There was an accumulation of unused supplementary textbooks and books of reference and general reading in the schools of the county without county library service. Many of these books might have been valuable to other elementary schools, high schools, and communities had there been some plan for putting them into circulation. The results of this survey were published and distributed by the American Library Association as a reprint of an article published in the February 12, 1930, issue of the United States

[26] Eightieth Report of the Public Schools of the State of Missouri, School Year Ending June 30, 1929. Issued by Charles A. Lee, State superintendent of public schools, Jefferson City, Mo., p. 113.

[27] Pamphlet No. 11, School and County Library Cooperation. Edited by Edith A. Lathrop.

Daily. A study published by the Office of Education in 1930 shows the service given schools by county libraries.[28]

States aid school libraries.—Certain activities which have been carried on by the States for the purpose of encouraging library service for rural schools have received added stimulus during the decade. Among these are the granting of State funds to schools for the purchase of library books, usually to supplement funds raised locally; the employment of school library supervisors; the use of traveling libraries; publishing and distributing book lists; extending to children in rural schools opportunities for instruction in the use of books and promoting reading circles.

The number of States with school library supervisors has increased from 6 to 10 during the decade. A supervisor of textbooks and school libraries was added to the staff of the Virginia State Department of Education in 1921. The Pennsylvania State Department of Education placed a school library supervisor on its staff in 1921, but at the present time this position is vacant. Through the activities of the General Education Board school library supervisors were made possible for departments of education in Louisiana in 1929 and in North Carolina in 1930. The six other States with school library supervisors in either their State departments of education or their State libraries are Indiana, Michigan, Minnesota, New York, Tennessee, and Wisconsin. There is a county library organizer on the staff of the California State library.

State library extension agencies in Iowa, Georgia, Maine, Michigan, Missouri, Oklahoma, South Dakota, Vermont, Wisconsin, and other States continue to place traveling libraries in rural schools. Reports from these States show that the supply of such libraries is not equal to the demand. A few States have either limited or discontinued traveling library service, believing that better service can be given to schools through county and local libraries.

Practically all State departments of education or State library agencies issue recommended lists from which the selection of library books may be made by the schools, particularly the rural schools. Generally the selection of books from these lists is mandatory if books are purchased with public funds. State reading-circle boards in a number of States also issue lists.

There is a growing tendency to include in book lists and courses of study issued by State educational agencies helps for teachers on library instruction. The course of study issued by the Iowa Department of Public Instruction includes a section on the use of the library prepared by the secretary of the State library commission. The Min-

[28] Lathrop, Edith A. County Library Service to Rural Schools. United States Office of Education, Bulletin, 1930, No. 20.

nesota State course of study has in its English section an outline on the library prepared by the State supervisor of school libraries.

The schools are cooperating quite generally with State library and educational agencies in distributing lists of books for recreational reading for children. In a number of instances certificates are awarded by these State agencies to children reading from such lists a specified number of books. Some of the States in which this activity is carried on are Alabama, Colorado, Connecticut, Georgia, Illinois, Kansas, Louisiana, Massachusetts, New York, North Dakota, Vermont, West Virginia, and Wisconsin. The West Virginia Pupils' Reading Course was founded in 1922. The Oregon Children's Book League was organized in 1927. The Maryland Public Library Advisory Commission began offering certificates in 1930 to boys and girls reading eight books from specified lists.

A study of the rural school library activities of the States was published by the Office of Education in 1930.[29] The United States Daily began in 1930 the publication of a series of articles on the school library activities in the various States. These articles are prepared in the Office of Education in cooperation with State departments of education.

JUVENILE USE OF PUBLIC LIBRARIES

It is fitting that this survey should close with a review of the influence of the school in increasing juvenile use of public libraries. If the school does not stimulate normal children to become patrons of libraries it fails in its most important duty, namely, providing them with the skill and the desire to carry on voluntary and intelligent reading. Reports of public libraries and city boards of education giving information on the subject show that the use of libraries by schools has, with few exceptions, tended not only to increase the number of juvenile readers of libraries but also to influence the character of the books read. The following summarizations of the subject are typical:

The contact of the Public Library of the city of Boston with the schools of that city is stronger than with any other institution. Because of the growing importance of junior high schools there is an increased demand for reference material for children of this school level. All over the city the children's rooms are establishing pamphlet files and special indexes to provide information or supply source material on industrial and commercial subjects. In some of

[29] Lathrop, Edith A. State Direction of Rural School Library Service. U. S. Office of Education, Bulletin, 1930, No. 6.

the branches definite efforts have been made to teach the use of card catalogues and reference books.[30]

In Cincinnati the circulation of juvenile books from the Public Library was 35,267 more volumes in 1929 than in 1928. Work is carried on extensively with the schools by the main library and by 21 of its branches.[31]

Reports of a perceptible decrease in the attendance of young children have come from several branches of the Chicago Public Library. The cause has been ascribed to traffic perils encountered on city streets. The use of boy patrols to guard the crossings leading to the schools relieves the situation to some extent. At one branch it has been found necessary to meet groups of children at the boulevard crossings and escort them to the weekly story hours. This natural and unavoidable condition may mean establishing closer relations between the schools and the public libraries.[32]

The director of work with children in the Cleveland Public Library reports not only an increase in the circulation of books in the Lewis Carroll Room, which is a room of the main library equipped with children's books for the use of teachers and parents as well as children, for the five years from 1923 to 1928, but a change in the character of the books circulated. During the 5-year period the circulation increased 29,301. This was more than the total issue of books in 1923, which was 23,127. There was a greater demand for books dealing with technical and scientific subjects because these subjects are emphasized in the schools. Likewise there was a demand for books dealing with the fine arts because of the emphasis of the school curriculum upon art, music, and poetry.[33]

Installment of libraries in the grammar schools in Columbus, Ga., has reduced to some extent the readers in the juvenile department of the public library. But this has not been the case with the high-school students. In spite of the new and growing library at the high school, the students continue to use freely the books in the public library.[34]

The report of the schools division of the Public Library of the District of Columbia for 1926–27 states that aside from furnishing supplementary reading in connection with school work the library

[30] Public Library of the City of Boston. Seventy-seventh Annual Report of the Trustees, 1928; pp. 56–57.

[31] Public Library of Cincinnati and Hamilton County. Annual Report, 1928–29; pp. 41–48.

[32] Chicago Public Library. Fifty-seventh Annual Report of the Board of Directors, 1928; pp. 29–30.

[33] The Cleveland Public Library. Sixtieth Annual Report, Jan. 1, 1928, to Dec. 31, 1928; p. 58.

[34] Columbus, Ga. · Sixtieth Annual Report of the Public Schools, for the Year Ending 1927; pp. 144–146.

makes another important contribution, which is developing readers from nonreaders and fastening the reading habit among the indifferent. This has caused the library to look upon school work as a feeder for branch children's rooms, supplementary to them but not to be discarded in the development of the work with schools. The circulation in the schools division for the eight years ending in 1926–27 increased from 188,448 to 340,163 volumes; and the book collection expanded from 18,000 to 33,886 volumes.

In the platoon schools of Glendale, Calif., interesting books, suitable to the ages of the children, are kept on the library shelves and children are encouraged to select what they wish to read, subject to the approval of the teachers in charge. These free reading periods in school have stimulated a demand for public library books.[35]

In Grand Rapids, Mich., where there is the closest kind of cooperation between schools and the public library, 64.9 per cent of all of the school children (public, private, and parochial) hold library cards.[36] Paterson, N. J., which had 19,947 volumes in school libraries in 1930, reports that many more children are now using the public library than formerly.[37] Use of the public library by school children is increasing in Manchester, N. H.[38]

For the year ending in April, 1930, the children's department of the St. Louis Public Library issued 1,724,124 volumes as compared with 1,672,762 the previous year. The children's librarian at one of the branches says that for the past two years there has been a noticeable increase in the work with little children. She ascribes this in part to the interest which the public schools are taking in improving the children's reading ability and in forming the habit of library use. The children's librarian from another branch points out in her report the broadening interest in nonfiction among juvenile readers. Three years ago the call was for books on radio. Now aviation has supplanted radio. Books of travel and natural history are still in demand, but in addition there are calls for books on sociology and history. The schools are responsible for the change, she says.[39]

CONCLUSION

The period under review has been marked by zealous propaganda for school libraries, also by an application of scientific principles to the investigation of school library problems as evidenced by the

[35] Glendale, Calif. Annual Report of the Glendale City Schools 1928–29; p. 7.

[36] The Library and the School in Grand Rapids. Issued by the Library, September, 1929; p. 7.

[37] Paterson, N. J. Annual Report of the Board of Education for the Year Ending June 30, 1930; pp. 104, 174, and 251.

[38] Manchester, N. H. Annual Report of the School Committee, 1929; pp. 50–52.

[39] St. Louis Public Library. Annual Report, 1929–30; pp. 55–64.

character of the research studies that have been published on the subject. The status of school library conditions as revealed in educational and library surveys, and the many problems upon which available information is either lacking or limited, show that there is still much to be done.

One of the greatest handicaps in reporting the development of school libraries is the lack of comparable statistics. For example, in reports giving the number of schools with libraries there is often no way of knowing whether libraries in the technical sense of the word are meant or simply collections of books housed in bookcases or in storerooms. Confusing conditions prevail concerning the number of books in school libraries. There is no way of determining how many of the books are supplementary textbooks. Again, the term "librarian" may mean in one instance a technically trained librarian, giving full time to library work, and in another, a teacher with little or no library training who divides her duties between the class room and the library. There is great need of an agreement upon terms in school library nomenclature.

Several important research studies and investigations, which are either under way or will be begun in the near future, promise enlightening information on the subject of school libraries. Two that are of national significance are the survey of secondary education and the survey of the education of teachers which are being conducted by the United States Office of Education. The former will include a comprehensive study of library conditions in secondary schools; and the latter will give information on the adequacy of library facilities of teacher-training institutions and an analysis of the manner and extent to which prospective teachers use libraries. The New York State Association of Elementary Principals is gathering data on the library situation in the elementary schools of that State. The department of elementary-school principals of the National Education Association has announced that its 1933 yearbook will be devoted to school libraries.

Graduate students in education and library science and others interested in conducting scientific investigations of school library conditions will find the following questions and projects suggestive of topics that are as yet practically unexplored:

1. What are the present practices relative to the administrative control of school libraries? To what extent is such control in the hands of boards of education—public libraries? To what extent is the authority divided between the two institutions?

2. What do school library budgets show?

3. The school librarian, her educational and technical training, experience, salary, and duties.

4. An evaluation of the bases upon which books listed in book lists for elementary and secondary schools are selected.

5. To what extent are teachers' professional libraries under the control of school library supervisors?

CHAPTER XX

NATIONAL SURVEYS OF THE OFFICE OF EDUCATION

By Walton C. John

Senior Specialist in Higher Education

Contents.—New division of major educational surveys—Survey of land-grant colleges and universities—Survey of Negro colleges and universities—National survey of secondary education—National survey of the education of teachers—National survey of school finance.

INTRODUCTION

In 1930, the Commissioner of Education created a division of major surveys as a part of the new plan of organization of the Office of Education. The establishment of this division was the result of the expansion of the survey activities of the office within the past decade. These surveys were made at the request of State and municipal governments, private educational organizations, and individual colleges and universities. In 1926 the Office of Education began its first survey, national in scope, of the 69 land-grant colleges and universities, the field covering every State in the Union. This survey was followed in 1927 by the survey of 79 Negro colleges and universities, covering 18 States, largely in the South.

The new division of major surveys is designed to take care of the growing demands for nation-wide studies of importance without disturbing the activities of the regular staff of the Office of Education. According to Commissioner Cooper, this division will recruit its staff for specific surveys from nationally known experts who will be employed temporarily and who will, in the case of part-time workers, return to their former posts of duty, and in the case of full-time workers, find new positions when the survey is completed. These major surveys have been financed by special appropriations of Congress with the exception of the Negro college survey, which was financed by the colleges themselves with the addition of an appropriation from the Phelps-Stokes fund. Consequently, these surveys do not directly affect the budget concerned with the regular activities of the Office of Education.

The new plan presents a number of advantages, both to the Federal Government and the institutions which are cooperating in the surveys. It permits the Office of Education to obtain the services of experts for a limited time whose salaries at their home institutions would not permit them to accept the salaries paid by the United States Government. The institutions will have the advantage of the experience gained by the experts and their many assistants who will have obtained a nation-wide and authoritative view of the questions involved in the survey on a scale that could not be easily duplicated by any single institution.

In the following pages are given summary reports of the two major surveys that were completed by the Office of Education, namely, the survey of land-grant colleges and universities, and the survey of Negro colleges and universities. There are also included brief descriptions of the purpose and organization of the nation-wide surveys of secondary education, the education of teachers, and school finance now under way.

SURVEY OF LAND-GRANT COLLEGES AND UNIVERSITIES

Among the outstanding educational organizations in this country that have cooperated in the development of higher standards of college and university service on a nation-wide basis is the Association of Land-Grant Colleges and Universities. This association has been in existence for nearly 45 years and has centered its activities on problems of agricultural, engineering, and home economics education, research, extension, and Federal legislation relating thereto. Through its several committees on instruction, organization, and policy, the special technical committees and the joint committees of the association and the United States Department of Agriculture, the association has greatly aided in coordinating the educational and research activities of the land-grant colleges to a remarkable degree.

In order to lay the foundations for a greater service on the part of these institutions for the purpose of meeting the demands resulting from the many changes that have taken place in the economic, social, and educational life of the country, the need for a comprehensive survey of land-grant colleges and universities was voiced in 1924 by President R. A. Pearson.

In May, 1926, upon the request of this association, with the approval of the Secretary of Agriculture, the Federal Government, through the Office of Education, undertook a survey of the 69 land-grant colleges and universities, including the 17 attended by negroes. This survey was completed in 1930. The financing of the survey

was undertaken by Congress, which appropriated $117,000, the first fund ever voted by Congress for such a purpose.

Dr. Arthur J. Klein, chief of the division of colleges and professional schools of the Office of Education, was appointed director of the survey by Commissioner John J. Tigert, who indicated its purpose as follows:

> The survey is a national study of the accomplishments, the present status, and the future objectives of the land-grant type of education, and not a collection of surveys of individual institutions. In conducting the survey, the Office of Education recognizes that in the broadest sense the functions of the land-grant colleges, as defined by the Morrill Act and as developed during their past history, are regarded by the office to be public and democratic in nature, with ideals, practical purposes, and objectives which are worthy of full recognition in the field of higher education.

A national advisory committee of 10 was designated as follows:

> The Secretary of the Interior, chairman; the Secretary of Agriculture; President R. A. Pearson, of the University of Maryland, representing the Association of Land-Grant Colleges and Universities; President R. S. Wilkinson, of the State Agricultural and Mechanical College, Orangeburg, S. C., representing the Conference of Negro Land-Grant College Presidents; Hon. Francis G. Blair, State superintendent of public instruction of Illinois, Springfield, Ill.; President Lotus D. Coffman, of the University of Minnesota; President S. W. Stratton, of the Massachusetts Institute of Technology; President Charles A. Lory, of the State Agricultural College of Colorado; Martha Van Rensselaer, director of the New York State College of Home Economics, Cornell University; and Dean F. B. Mumford, College of Agriculture, University of Missouri.

This committee examined and approved the plan of the survey prepared by the director and passed upon the final draft of the report.

Doctor Klein, after visiting the majority of the land-grant institutions and having conferred with approximately 700 administrative and educational staff members, classified the problems to be studied under the following heads: Control and administrative organization; business management and finance; the work of the registrar; alumni and former students; student relations and welfare; staff; library; agriculture; engineering; home economics; arts and sciences; commerce and business; teacher training; military education; professional veterinary medicine; summer session; extension services; research; graduate work; and Negro land-grant colleges.

The survey report was printed in 1930 as Bulletin, 1930, No. 9, of the Office of Education. It consists of two volumes of approximately 1,000 pages each, and constitutes one of the largest single collections of educational facts and interpretations.

A number of the salient features of the survey report including observations and recommendations are summarized herewith.

Consideration is first given to the redefinition of the land-grant college. "The first Morrill Act, which provided for the establishment of the most comprehensive system of scientific, technical, and practical higher education the world has ever known, contained three outstanding features. The first was the provision for the creation of a permanent endowment through grants of public lands for the organization and support of the colleges. The second was the designation of the type of college to be established. The third was the placing of an obligation upon the States to maintain intact the capital fund of the endowment for the maintenance of the college, which carried the far-reaching implication of future financial support by the State governments themselves."

Of particular interest is the clarification of the alleged definition of "mechanic arts" which implied the limitation of these institutions to work in agriculture. Senator Morrill, upon request, made a clear statement of the matter before the Sheffield Scientific School of Yale University which at that time was the land-grant college for Connecticut. According to the report of this meeting by Professor Brewer, the Senator was quoted as saying: "There must be much variety allowed to the details, although all the colleges should be the same in spirit and essentially of the same grade, that is, colleges in which science and not the classics should be the leading idea." Senator Morrill did not intend them to be agricultural schools; the title of the bill was not his, and was not a happy one. He expected the schools to be schools of science rather than classical colleges, but not institutions of lower grade. The bill was purposely and carefully planned so that the old colleges might use it as an aid in expanding in the direction to give them more science teaching or that new colleges might be organized as the conditions and needs in the several States might demand.

Control and administration.—It should be borne in mind that although Congress has prescribed the character of the type of instruction to be offered by these schools, yet it has been left to the several States to expand the educational programs thus prescribed to meet their respective needs. The States therefore carry the larger part of the burden of support of these schools, and it is due to the service rendered that the people have responded by giving them increased support. However, administration of the land-grant institutions rests in the hands of the State governing bodies or trustees, Federal participation in administration being limited to the cooperative control of special funds with limited supervision over the special types of educational service.

It has been the finding of the survey that in recent years there has been an encroachment on the authority of the State governing boards

of the land-grant colleges by the extension of the powers of different State agencies over the financial and educational administration of these colleges. It is felt that the governing boards of the land-grant colleges should be given sufficient power and freedom of action subject to law, without petty restrictions due to conflicting or overlapping of power of other State educational and noneducational offices.

Expenditures of the land-grant colleges.—The report shows that the proportion of expenditures for the principal functions and activities of the land-grant colleges varies greatly. The total expenditures of 52 land-grant colleges for educational and contributory purposes for the year of the survey was $98,867,945. Of this, 6.8 per cent was spent for administration and general purposes, 50.3 per cent for resident instruction, 2.5 per cent for general library purposes, 15.4 per cent for agricultural and general extension, 14 per cent for experiment stations and other organized research, and 11 per cent for physical plant operation and maintenance.

There are 10 institutions in which the expenditures for administration and general purposes exceed 10 per cent of the total budget, 16 institutions in which the expenditures for resident instruction exceed 50 per cent of the total budget, and there are three institutions in which the expenditures for extension exceed those for resident instruction. In two of these cases the expenditures for extension exceed 40 per cent of the budget and in one case it reaches 58.4 per cent. There are three schools which expend more than 30 per cent of their income for experiment station work and other organized research, the maximum percentage being 42.7 per cent.

The grand total value of the properties of the land-grant colleges in 1928 was $427,005,366, including physical properties and endowments.

Although recognized on the whole that the land-grant colleges are soundly administered, it appears that considerable reorganization of the financial administration of these institutions is desirable. There should be in a number of instances a complete separation of the educational and financial administrative activities of the colleges. All business activities should be concentrated under a single business officer.

More accurate appraisals of progress of their institutions by presidents and boards is also recommended. In many cases both internal and external audits of accounts should be made and systems of perpetual inventories set up.

There is also need among the land-grant institutions of a uniform accounting system which will make possible a more accurate study of comparative costs of instruction and administration. A more uniform budget system throughout these colleges is essential. It is

recommended that the financial control of athletics should be under the complete control of the institution and funds handled through the chief business officer.

Enrollments and student mortality.—The total enrollments for 1928 were 296,676 students, of whom 175,764, or 59.2 per cent, were in residence, and 120,912 students, or 40.8 per cent, were nonresident students.

A study was made of the mortality of the class of 1928. In 38 institutions 22,600 freshmen were enrolled during the year ending June, 1925, of whom 72 per cent were men and 28 per cent women. During the freshman year 31.3 per cent of the men and 30.2 per cent of the women left college; during the sophomore year 16.5 per cent of the men and 18.6 per cent of the women left; during the junior year 7.4 per cent of the men and 7.6 per cent of the women left; and 3.5 per cent of the men and 2.1 per cent of the women left during the senior year. The number receiving degrees in 1928 or before was 6,438, or 28.5 per cent of the number enrolled in the freshman class.

One of the most significant findings of the survey is the percentage of increase or decrease of undergraduate and graduate students from 1920 to 1928 by major fields of interest.

The decline in the percentage of undergraduates attending the agricultural divisions is marked. In 1920 agricultural students constituted 15.6 per cent of the undergraduate enrollment, in 1928 they constituted only 8.7 per cent, the actual enrollments in this field falling from 13,697 in 1920 to 11,347 in 1928.

In 1920, agricultural students constituted 16.8 per cent of the graduate enrollments; in 1928 they represented 15.1 per cent, the enrollments for these years being 577 and 1,480. This shows a large increase in graduate enrollments in agriculture notwithstanding a slight decline in the percentage of this group.

There has also been a slight decline in the proportion of undergraduates attending the engineering divisions. In 1920, engineering students constituted 23.2 per cent of the undergraduate enrollments; in 1928, they represented 20.1 per cent. However, the actual enrollments increased from 20,408 in 1920 to 29,530 in 1928. The percentage of graduate engineering students has increased from 6.6 per cent to 7.2 per cent, and the enrollments were 227 in 1920 and 704 in 1928, respectively.

A slight decline in the proportion of undergraduates attending the home economics divisions is also noted.

In 1920 home economics students constituted 5.9 per cent of the undergraduate enrollment; in 1928 they represented 5.2 per cent. However, there was an increase from 5,220 in 1920 to 7,733 in 1928. The percentage of graduate students in home economics has increased from 1 to 3 per cent with 34 enrolled in 1920 and 290 in 1928.

The enrollments of students in education have increased rapidly. In 1920 education students constituted 2.6 per cent of the undergraduates and in 1928 they constituted 10.4 per cent, having increased from 2,257 to 15,268. The percentage of graduate students in education likewise increased from 2.3 to 11.9 per cent, with 80 enrolled in 1920 and 1,164 in 1928.

The outstanding increase in enrollments has been in arts and sciences. In 1920 undergraduates in this field constituted 34.2 per cent of the enrollment. In 1928 they constituted 38.8 per cent, and the enrollments for these years were 30,069 and 57,060, respectively. However, there has been a decline in the percentage of arts and science graduate students, having dropped from 62.4 to 50.8 per cent. But the numbers have increased from 2,146 in 1920 to 4,959 in 1928. Only a slight increase in percentage of undergraduate students in commerce is recorded, an increase from 7.3 to 7.8 per cent. However, the enrollments have increased from 6,422 in 1920 to 11,539 in 1928. An increase in graduate enrollments is shown from 0.7 per cent in 1920 to 2.7 per cent in 1928, the enrollments for these years being 24 and 269, respectively.

The percentage of undergraduate enrollments in veterinary medicine has fallen from 0.7 to 0.4 per cent, the enrollment figures showing a reduction from 653 to 633, from 1920 to 1928. The percentage of graduate students in this field has dropped from 0.3 to 0.2 per cent. But the enrollments have increased from 13 in 1920 to 22 in 1928.

Considering all other departments together not included in the divisions given above, there has been a decline in the percentage of undergraduate enrollments from 10.3 to 9.4 per cent, but these enrollments show a slight increase from 9,049 to 13,899. The percentage of graduate students in these unclassified departments has decreased from 9.7 to 8.9 per cent, the enrollments having increased from 334 in 1920 to 875 in 1928.

The figures given above are clearly indicative of changes in the objectives of students entering the land-grant colleges. The great increase in teacher education and in arts and sciences shows the growing power of the vocational opportunities of teaching and general research as against those in undergraduate courses in agriculture and veterinary medicine.

Changes in admission requirements.—Since 1900 there has been a marked change in the entrance requirements of the land-grant colleges. In 1900 the average number of units required for entrance to the liberal arts divisions was 11.5, with 9.8 units specified. In 1928, an average of 15 units was required with only 8 units specified.

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Salaries of graduates of land-grant colleges.—Of special interest is the study of the income of 23,284 graduates of land-grant colleges, including all major divisions, covering a period of 30 years. The 687 graduates one year out of college received an average annual salary of $1,802.11; the 6,683 two years out of college received an average annual salary of $2,088.54; the 3,397 graduates 10 years out of college received an average annual salary of $4,630.26; the 1,538 twenty years out, received $7,234.92; the 1,005 thirty years out received $8,375.97.

Student relations and welfare.—Perhaps one of the greatest needs in the land-grant institutions, especially in the separate colleges of agriculture and mechanic arts, is for a larger and better trained personnel service for the guidance and placement of students. Greater social facilities for students such as student unions should be increased in number. There appears also a lack of machinery for bringing the alumni into effective contact with the colleges.

Teaching staff.—Attention is called to the median annual salaries paid to members of the teaching staffs of the land-grant colleges in 1928. Deans working on a 9-month basis received $5,193, on a 12-month basis $5,071; professors on a 9-month basis received $4,278, on a 12-month basis, $4,161; associate professors on a 9-month basis $3,342, on a 12-month basis, $3,207; assistant professors on a 9-month basis $2,738, on a 12-month basis, $2,880; instructors on a 9-month basis received $2,005, on a 12-month basis, $2,134. It will be noted that with the exception of assistant professors and instructors all other categories of staff members received more salary on a 9-month basis than those employed on a 12-month basis.

A study of the training of the teaching staff of the land-grant colleges for the entire United States shows that 3.62 per cent of the staff members hold no degree; 37.76 per cent hold a bachelor's degree as the highest degree; 33.93 per cent hold the master's degree as the highest degree; and 18.19 per cent hold the Ph. D. or other corresponding doctor's degree as the highest degree.

Sabbatical leave is provided in part by 19 institutions, but 24 make no provision for it.

Library.—In one-half of the land-grant colleges the collections of books are considered inadequate. The library staffs in many schools should be enlarged, and in general more adequate housing is needed.

Agriculture.—One of the most important questions discussed in the survey refers to the objectives of the colleges of agriculture. As there has been a relative decline in agricultural enrollments in recent years, adjustment of the programs in this field to the needs of rural and industrial life has been desirable. General aims of agricultural education are clearly expressed by a number of schools; namely,

scientific preparation for all activities connected with agricultural endeavor, and leadership in rural life. It is also considered by some as the basis for a broad, liberal education. The specific aims include: Training for the work of a farmer, high-school teacher, county agent, extension specialist, florist, landscape architect, nurseryman, plant quarantine inspector, seed company salesman, sales manager for fertilizer companies, farm real-estate agent, city milk inspector, rural banker, editor, and agricultural journalist, and other activities.

Although there has been some doubt in the minds of many people as to the function of the agricultural college, the evidence of the survey goes to show that "preparing students for general farming is no longer a primary function of the resident undergraduate work of colleges of agriculture in land-grant institutions."

The objectives in higher education in agriculture are increasing and properly those of preparing: (1) Research workers in the scientific and social fields related to agricultural production and distribution and to rural life, (2) extension workers for service in the dissemination of knowledge concerning the applications of scientific and economic truth to the problems of rural living, (3) workers in all types of business and commercial activities related to agricultural production, distribution, and service, (4) teachers of vocational agriculture and science in the public schools, (5) public servants in the investigating and regulatory departments of the State and National Governments, and (6) overseers and managers of specialized and large-scale farm enterprises.

It has also been observed that agricultural courses and curricula in these schools reflect a decided tendency to increased economic and social emphasis, with a closely related interest in the natural sciences.

Engineering education.—The land-grant college act of 1862 stimulated the rapid development of engineering colleges in the United States. To-day there are approximately 148 engineering colleges, of which 48 are in land-grant institutions. However, the enrollments in engineering in the latter group, 29,528, constitute nearly one-half the total enrollment of engineering students in the country for the year 1928.

The survey, having clearly restated the controversial question of the meaning of mechanic arts as applied to the colleges of engineering in the land-grant colleges according to the meaning given it by Senator Morrill and by the Association of Land-Grant Colleges, accepts the following definition that "mechanic arts is a broad educational term, which includes engineering education as its higher or professional phase, trade school and short course instruction as its collateral and extension phase, and experimental and other technical investigation as its research phase."

Attention is called to the development of engineering experiment stations. Only slow progress has been made and the necessity exists for expansion. Seven land-grant institutions have well-organized

and supported stations, and 35 in all are conducting experimental work in engineering. Up to June, 1928, the stations had published only 808 bulletins and for the year ending June 30, 1928, they had expended but one and one-third million dollars.

Value of services of engineering colleges.—It is only fair in view of the relatively heavy cost of engineering education and research to evaluate this type of education and service. Many of the land-grant college engineering schools have been the pioneers in engineering progress, and they have contributed much to the wealth of the country by countless services to private corporations, municipalities, and State and Federal Governments, as well as to the individual.

Home economics.—The field of home economics education is broad. Its objectives cover four major fields—the development of handicraft skill in affairs of the home, development of home managers, preparation for gainful employment, and utilization of interest in home and family activities as a medium through which scientific and social education may be provided in combination upon the college level.

The enrollments in home economics for 1927–28, according to curricula in 43 land-grant colleges, show the following distribution of students in order of frequency: General home economics, 1,733; teacher training, 926; professional home economics, 495; foods and nutrition, 131; institutional management, 126; hotel management, 123; extension, 48; textiles and clothing, 47; physical education, 26; hospital dietetics, 23; applied art, 13; nursing, 9; home management, 7; bacteriology, home economics, journalism, 5-year bachelor of arts and bachelor of science courses, 3 each.

Arts and sciences.—In institutions which offer a number of so-called liberal arts and science courses, it appears that the latter tend to be spread out through the several technical divisions. In the separate land-grant colleges the isolated college of arts and sciences seems to have completely broken down. This breaking up of a unit organization for arts and sciences is significant in view of the fact that arts and science students are rapidly increasing in number in the land-grant institutions. Although there is need for more recognition of some form of general education appropriate to modern conditions, there is little probability of a return to the old type of 4-year college for satisfying this need in the case of students who may look forward to vocational or scientific specialization.

The junior college should serve as the instrument of general training and care should be taken to avoid the inclusion in its courses of specialized types of study.

Commerce and business.—One of the newer services of the land-grant colleges is the preparation of students for business or commercial activity. Results show that the graduates in these fields have

been successfully placed in retail stores, department stores, wholesale stores, in jobbing and commission work, banking and brokerage, real estate and insurance, manufacturing, public institutes, transportation, professional work, farming, and in many other occupations.

Considerable criticism has been made of the land-grant colleges for not having made more energetic provision for higher business education.

Attention is called to the need for blazing new trails in business education and studying scientifically the future prospects for a wider service.

Teacher education.—Among the significant developments within the land-grant colleges has been the establishment of departments and schools of education. These have made rapid strides in their growth.

In 1921–22, there were 5,829 students in general education, and 780 in vocational education. In 1927–28, there were 15,652 in general education, and 1,163 in vocational education. In 1927–28, there were 2,832 first degrees granted in general education and 250 first degrees in vocational education.

In the States which are served the report shows an under supply of teachers in vocational agriculture, home economics, trades and industries, commercial subjects, physical education, public school music, and art education. It is therefore evident that the teacher training units in the land-grant colleges are in an excellent position to meet the needs of those areas in which there exists an undersupply.

More adequate scientific and semiscientific facilities for the study of professional education and the dissemination of the findings of such study and research are greatly needed.

Military education.—One of the most important activities of the land-grant colleges has been the service rendered through its courses in military science. In 1927–28 there were enrolled in the basic course 43,782 students, and 7,411 were enrolled in the advanced course. Of these, 3,191 received commissions at the end of the year. From 1920 to 1928, 18,336 graduates of the land-grant colleges were commissioned in the Organized Reserves of the Army. The report indicates that more than 100,000 graduates and former students were in uniform during the World War, and that at least 30,000 of these became officers.

Veterinary medicine.—The report shows that the majority of veterinary colleges are not sufficiently manned or equipped to meet the needs for trained veterinarians. There is great need for more research equipment and trained personnel. Although the veterinary colleges are located principally at the land-grant colleges, they are not federally subsidized or supervised.

Summer session.—The summer sessions held at the land-grant colleges have grown rapidly since 1920. In that year 34,884 were registered, of whom 15,384 were men and 19,500 were women. In 1928, 66,094 were enrolled, of whom 26,980 were men and 39,114 were women.

Extension service.—One of the most valued services of the land-grant colleges is the educational aid offered to the rural population in general, particularly along the lines of agriculture, home economics, and related problems. The coordination of extension activities through the United States Department of Agriculture has developed a well-organized and uniform service reaching into nearly every county of the country. "The fundamental function of Smith-Lever extension education is the development of rural people themselves."

Typical amounts expended in this service since 1915 are as follows: In 1915, $3,597,236; in 1920, $14,658,079; in 1925, $19,332,372; in 1928, $20,677,424.

The financing of Smith-Lever extension is cooperative, the Federal Government contributing 35 per cent, the States 37.5 per cent, the counties 22.1 per cent, and private agencies 5.4 per cent.

The methods of financing county workers should be improved in a majority of States. Salaries should be paid from State and Federal funds, and expenses from county funds.

There is an increasing demand for home demonstration agents, as 60 per cent of the counties are without this service. To complete the development of agricultural and home economics extension an increase of expenditure of $1,000,000 a year for 10 years should be required.

General extension.—The survey shows that the land-grant colleges by numerous methods offer general extension courses covering many fields to a large group of people. However, there is need for a much greater development of general extension work in many of the land-grant institutions.

Of significance is the fact that while agricultural extension is directly stimulated by Federal and State aid and is relatively free to the public, general extension work must be supported largely by the fees of those who wish the service. The balancing and coordination of all extension activities under one system is one of the important questions now before land-grant college administrators.

Agricultural experiment stations.—It would seem that the most significant and far-reaching services of the land-grant colleges and universities have been those resulting from their programs of agricultural research. Growth of this work is in part indicated by the increase in the amount expended since 1900. For the year 1899–1900 the sum of $1,170,857 was expended in the agricultural experiment

stations, in 1927–28 it reached the sum of $14,209,755. This figure represents one-fifth of 1 per cent of the gross income from agricultural products. Compared with the amounts spent on research by industry as a whole, we find that industries expend about $13 for research to each $1,000 of capital invested, while State and Federal agencies for agricultural research spend about 43.5 cents for each $1,000 of capital invested in agricultural production.

Tested by its money value, this investment in agricultural research shows very great returns. While difficult to include certain intangible benefits, it has been shown conservatively that the money value of this research to agricultural industry in 1928 was approximately $842,470,995.

Graduate work.—In a number of the land-grant colleges the development of graduate work began as early as 50 years ago. This type of work did not receive much impetus until about 1910. Since 1920 there has been a large increase in graduate enrollments in every major educational field. In 1928 there was granted at the land-grant institutions a total of 3,707 master's degrees and 474 doctor's degrees. Attention is called to the need for prevention of wasteful duplication in graduate work in States having separate land-grant colleges and State universities. A number of methods are suggested by which graduate work and its development may be coordinated. It is also indicated that graduate work in the land-grant colleges can not be developed properly in the technical and professional fields unless there has been an adequate development of graduate work in the sciences.

United action on the part of the land-grant institutions with other technical institutions to protect the standards of graduate work is essential as there exists at present no satisfactory agency for the purpose.

It is recommended that the Association of Land-Grant Colleges and Universities take steps to set up the machinery for any standardization or accrediting that may be desirable or necessary in the land-grant college fields and to adopt the general principle of accrediting graduate work, so far as this may be needed, by fields of research or subject-matter fields rather than by institutions.

Negro land-grant colleges.—The Negro land-grant colleges bear a large share of the responsibility of educating Negro youth in the Southern States. On the basis of 9,397,356 colored population in the South in 1928, there was an enrollment of 12,922 college students in all colleges for Negroes. Of these, 9,395 were in nonland-grant institutions and 3,527 were in the Negro land-grant colleges, the latter number representing 27 per cent of the total Southern collegiate Negro enrollment. The 17 Negro land-grant colleges re-

ceived in 1928 a total income of $3,052,639, of which 8.5 per cent came from Federal funds, 45.2 per cent from State funds, and the remainder from fees, gifts, and earnings. The evolution of the Negro land-grant college in view of outstanding difficulties has been in recent years one of the most interesting as well as hopeful developments in the annals of American higher educational history. These schools, while passing for the present through a period of experimentation, are approaching full collegiate goals and some have fully qualified as standard or accredited institutions. They are destined to play an increasingly important part in the education of Negro youth and in the improvement of the economic and social conditions of Negroes.

Implications of the land-grant college survey.—There are two features of permanent significance involving the elements of revaluation of these institutions: (1) The restatement of definitions and aims which should help in the redirection of objectives in the light of existing and probable future conditions, (2) the large volume of organized information and data which shows cross sections of educational procedures and practices for the large number of departmental and other activities, and which is indicative of norms as well as of extreme conditions. A careful consideration of such comparative data can not help but stimulate the betterment of the several types of educational and administrative activity.

In the light of the evidence produced there can be no question as to the soundness of the land-grant colleges and universities as foundation stones in the complex structure of the body politic of the United States, nevertheless the survey points to a number of weak elements in these institutions and to inefficiencies caused by too rapid or inadequate development of certain services, or to partly undetermined standards of educational achievement. From a practical standpoint the land-grant colleges have added enormously to our national wealth and welfare. They have carried out the wish of their founder—to give a scientific basis for our national development, and they have helped to develop a new concept—government by science.

By humanizing scientific knowledge they have immeasurably improved the social life of millions of citizens who otherwise would tend to isolation or detachment from more favored groups of society. The unique character of these institutions lies in the completeness of their cycle of activities, including research, college training, and extension. The more recent developments in home economics education with the increased emphasis in the social sciences is indicative of a more comprehensive educational service which will be less restricted to contributions to technical knowledge. Greater emphasis

will be placed on knowledge that will make the student a more responsible participant in the activities of our social institutions.

In a recent communication President Pearson points to possible changes in these colleges which may be accelerated as a result of the survey.

> Fortunately, the charter of the land-grant institutions is not narrow. It is possible to make changes within wide lines and yet carry on the work under the same old laws. The laws provide especially for technical instruction and for helping the sons and daughters of the industrial classes. The particular kind of technical instruction most needed is not the same now as it was 60 years ago. New kinds of instruction now are available and perhaps some substitutions should be made for some kinds of instruction that have been given in one State or in numerous States and the changes well may need to be different in each State. These institutions should be ready always to adapt their work to the changing conditions that influence the lives of the people who are being served.
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> It is impossible to measure the benefits that have come from the land-grant institutions. Some of these benefits might almost be called spiritual. The line can not be drawn between them and the advantages that are measured in cold figures. Surely there is a spiritual side to these institutions. It relates to the way of living and to the ideals and ambitions of people. All these values need to be considered along with the important values that are measured by statistics and all should be given weight when studying changes that need to be made.
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> Land-grant colleges and universities may be thought of as living things. They are to grow in accordance with the needs of their clientele. If their affairs are directed by farseeing leaders, then these institutions will, to a large extent, anticipate new needs.
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> Surely the facts gathered in this survey will be a big help in revamping and in reorganizing the land-grant institutions throughout the country.

THE SURVEY OF NEGRO COLLEGES AND UNIVERSITIES[1]

In 1917 a comprehensive study of the private and higher schools for colored people in the United States was made by Dr. Thomas Jesse Jones, at that time specialist in the education of racial groups in the Bureau of Education (now Office of Education).[2] This study for a number of years was recognized as the principal source of information showing the standards of the various types of schools and colleges for Negroes in the country. The study also served to stimulate the Negro colleges to greater activity in improving their status from a financial as well as from an educational viewpoint.

Due to the many changes and the rapid improvement that had taken place in higher education for Negroes since 1917, a large num-

[1] U. S. Bureau of Education. Bulletin, 1928, No. 7. A survey of Negro colleges and universities.

[2] U. S. Bureau of Education. Bulletins, 1916, Nos. 38 and 39. Negro education. A study of the private and higher schools for colored people in the United States.

ber of Negro colleges felt that a new study or survey should be made that would show the existing status of Negro colleges and universities and at the same time give the data which could be used by appropriate accrediting associations in the preparation of a list of approved Negro colleges and universities. With the cooperation of the Association of Colleges for Negro Youth, the Phelps-Stokes fund, the educational boards and foundations of the several church organizations, and the State departments of education concerned, 79 Negro colleges and universities requested a survey of their institutions by the Office of Education in 1927.

The Commissioner of Education acceded to these requests and named Dr. Arthur J. Klein, chief of the division of higher education, as director of the survey. Associated with Doctor Klein were Dr. W. B. Bizzell, president of the University of Oklahoma; Dr. C. C. McCracken, at that time professor of educational administration at Ohio State University; Dean George B. Woods, College of Liberal Arts, American University; and from the staff of the Office of Education, M. M. Proffitt, specialist in vocational education; John H. McNeely, assistant to the director; and Dr. Walton C. John, associate specialist in graduate and professional education. The survey was completed within a year and the report of the survey published in 1928.[3]

Some of the principal findings of the survey report are:

Number of colleges and their enrollments.—In 1916, there were 31 institutions for Negroes in the United States, not including medical schools and normal schools, offering college courses or college subjects. In 1926, there were 79 colleges and universities for Negroes, not including several theological schools and a few institutions whose collegiate status could not be clearly defined.

In 1916, the 31 colleges enrolled 2,132; the enrollments in the 79 colleges in 1922–23 were 6,684, and by 1926–27 these enrollments reached 13,860. This represents an increase of 550 per cent in the gross enrollment of Negro college students from 1916 to 1926, and an increase of 107 per cent in the attendance at the 79 colleges from 1922 to 1926.

Of the 1926–27 enrollments of Negro college students, 51 per cent were men and 49 per cent were women. Only 7 of the 79 institutions are not coeducational.

Degrees granted.—In 1921–22, the total number of degrees granted by Negro colleges was 666, of which 497 were first degrees and 169 were graduate and professional degrees. Of the 79 schools included in this survey, 54 granted degrees in 1925–26, and the total

[3] Survey of Negro colleges and universities. U. S. Bureau of Education. Bulletin, 1928, No. 7, 963 pp.

number of degrees granted was 1,174. Of these, 963 were first degrees and 211 were graduate and professional degrees.[4]

Control and finance.—In the matter of control, the 79 institutions present 4 general types: 22, including normal schools, teachers colleges, and land-grant institutions, are publicly supported and are governed by boards representing the State government; 9 universities and colleges are owned, governed, and controlled by independent boards of trustees, and are privately supported; 31 universities and colleges are under ownership and control of Northern white denominational church boards, and are privately supported, and there are 17 privately supported colleges owned and governed by Negro denominational church boards and organizations.

It was found that the institutions governed by independent boards of trustees have the largest incomes, the average for this group being $261,082. The institutions governed by State authority come next in order of income with an average of $145,526. The institutions under control of Negro church organizations have an average income of $66,977, and those controlled and administered from central headquarters of Northern white church boards have an average income of $61,075.

Teaching staff and equipment.—The report shows that in 1927, 40 of the colleges had full-time college faculties with 8 or more teachers; 17 institutions had faculties with from 5 to 7 full-time college teachers; and 22 institutions had faculties with less than 5 full-time teachers. Of the 1,046 college teachers included in the survey, 903 or 86 per cent have obtained degrees earned in course and 139 hold no degrees. Of the 903, 305 hold advanced degrees including the M. A., Ph. D., and B. D.

One of the more important criticisms of conditions made by the report refers to a lack of proper classification and ranking of college teachers. This has resulted in a failure to place due responsibility on those teachers who should share with the administrative officers a part in developing the educational and financial programs relating to their respective departments.

The facts set forth also show that a large proportion of the Negro colleges suffer because of the rapid turnover of the teaching staffs. This condition is caused in part by the low salaries paid in a number of these institutions, especially those in the lower ranks. The average salary paid to the upper third group of teachers in the 79 institutions is $2,263 annually; for the group representing the lower third the average salary is only $863. A general upward grading of salaries is recommended.

[4] As the study by Doctor Jones does not give comparable data on degrees, control and finance, and teaching staff, comparisons with the data on these topics obtained for this survey can not be made.

During the decade closing with the year of the survey, great improvement is noted with respect to educational equipment, nevertheless only 15 of the 79 schools had libraries, containing 10,000 or more volumes.

The survey commission noted a marked improvement in the development and management of the laboratories for science teaching.

Educational services.—The 79 colleges and universities under discussion have within the past 10 years greatly increased their educational services. Most of the colleges under independent boards of trustees began their programs on an industrial or agricultural basis. At the present time the majority of the institutions belonging to this group have developed strong programs in the liberal arts, education, and preprofessional college work.

The colleges under northern church boards almost from the beginning of their work, have given instruction in the liberal arts and sciences and have stressed theological and religious training. In recent years the interest in theological training has waned and greater interest is shown in training students for teaching and other professions.

The colleges of the Negro denominational organizations likewise emphasized the liberal arts and theology in their earlier programs of study. The later interest has been in the direction of the training of teachers and in preparing students for their professional training.

The Negro land-grant colleges from 1916 to 1926 passed through a rapid stage of development. Prior to 1916 their principal services were in the field of secondary education including also curricula in vocational subjects and manual training. To-day the majority of the Negro land-grant colleges have decreased or eliminated their secondary school activities and have concentrated on work of collegiate grade. Although agriculture, technical, and home economics education have an important place in these colleges, increased attention has been given in recent years to the training of teachers in vocational subjects including commerce and business. Increased emphasis also has been given to preprofessional courses in law and medicine.

It is evident from the foregoing statements that the colleges for Negroes are adjusting their educational programs to meet the needs of undergraduate training of Negro youth.

In the future attention will need to be given to the development of some schools that will offer adequate opportunities for graduate work and research.

As a result of this survey the American Medical Association through its council on medical education and hospitals made a classification of the majority of schools included in the survey until such time as provision might be made by the regular accrediting associa-

tions of colleges and secondary schools for preparing a list of approved or accredited Negro colleges and universities.

The classification was made by a special committee consisting of Dr. G. B. Woods, Dr. C. C. McCracken, of the survey staff, and Dr. Louis R. Wilson, University of North Carolina, Chapel Hill. The list was published as a circular of the American Medical Association in 1929, under the title Classification of Negro Colleges.

NATIONAL SURVEY OF SECONDARY EDUCATION

In view of the extraordinary growth of secondary schools in this country and because of the many problems arising as a result of this development, the North Central Association of Colleges and Secondary Schools and other regional accrediting agencies of secondary schools and colleges united with the American Council on Education in requesting Congress to support a nation-wide survey of the secondary schools of the country. The National Education Association, the National Council of Superintendents of Education and State Commissioners, and the Department of Secondary School Principals also cooperated by indorsing the request and urged Congress to give the necessary appropriations.

The survey was authorized by the Seventieth Congress in an act approved March 4, 1929, and an appropriation of $225,000 was granted covering a period of three years. Of this sum, $50,000 was made available the first year, $100,000 the second year, and $75,000 is available for the third year.

Through the efforts of the National Committee on Research in Secondary Education, a suggested outline covering the field of the survey had been prepared. This has greatly assisted the survey authorities in determining the problems to be studied.

It is the purpose of the survey to study critically the organization of schools and districts, the secondary school population and subsidiary problems, questions of administration and supervision, and the curricular and extracurricular activities. However, it was found necessary to eliminate a great many questions as the provision made by Congress is not sufficient fully to cover the field.

The Commissioner of Education, who is director of the survey, named Dr. Leonard V. Koos, of the University of Chicago, as associate director.[5] Doctor Koos for the past two years has actively carried on the work of organization and has developed a strong research staff consisting of well-known part-time experts and young full-time professional workers. In immediate charge of the office work

[5] The writer is indebted to Doctor Koos, for his assistance in obtaining the data for this section.

is Carl A. Jessen, principal specialist in secondary education, who is coordinator for the research staff and the clerical force employed.

The survey has had the benefit of the counsel of an advisory group and committees. The expert consultants called to advise the directors are:

H. V. Church, superintendent, J. Sterling Morton High School, Cicero, Ill.; Ellwood P. Cubberley, dean, school of education, Leland Stanford University, Stanford University, Calif.; James B. Edmonson, dean, school of education, University of Michigan, Ann Arbor, Mich.; Charles H. Judd, director of the school of education, University of Chicago, Chicago, Ill.; Charles R. Mann, director, American Council on Education, Washington, D. C.; A. B. Meredith, professor of education, New York University, New York, N. Y. (formerly commissioner of education, State of Connecticut); John K. Norton, professor of education, Teachers College, Columbia University, New York, N. Y. (formerly director of research, National Education Association, Washington, D. C.); Joseph Roemer, director of instruction, junior college training school, George Peabody College for Teachers, Nashville, Tenn., and (formerly professor of secondary education, University of Florida, Gainesville, Fla.), and William F. Russell, dean, Teachers College, Columbia University, New York, N. Y.

A professional committee of representative educators likewise has been named. It includes the following:

E. J. Ashbaugh, dean, school of education, Miami University, Oxford, Ohio; John L. Clifton, State director of education, Columbus, Ohio; R. L. Cooley, director, Milwaukee Vocational School, Milwaukee, Wis.; Philip W. L. Cox, professor of secondary education, New York University, New York, N. Y.; Jesse B. Davis, professor of secondary education, Boston University, Boston, Mass.; J. D. Elliff, high-school visitor, University of Missouri, Columbia, Mo.; Lucile Foster Fargo, associate professor of library science, George Peabody College for Teachers, Nashville, Tenn.; Payne Templeton, principal of Flathead County High School, Kalispell, Mont.; Will French, associate superintendent of schools, Tulsa, Okla.; John M. Gandy, president, Virginia State College, Petersburg, Va.; T. W. Gosling, superintendent of schools, Akron, Ohio; Arthur Gould, assistant superintendent of schools, Los Angeles, Calif.; E. D. Grizzell, professor of secondary education, University of Pennsylvania; W. W. Haggard, superintendent, Joliet Township High School and Junior College, Joliet, Ill.; W. A. Jessup, president, Iowa State University, Iowa City; Franklin Johnson, president, Colby College, Waterville, Me.; J. Stevens Kadesch, head master, Medford High School, Medford, Mass.; Frank M. Leavitt, associate superintendent of schools, Pittsburgh, Pa.; Michael H. Lucey, principal, Julia Richman High School, New York, N. Y.; A. Laura McGregor, vice principal, Washington Junior High School, Rochester, N. Y.; C. R. Maxwell, dean, school of education, University of Wyoming, Laramie, Wyo.; Bruce Millikin, principal, East High School, Salt Lake City, Utah; Shelton Phelps, dean of the graduate school, George Peabody College for Teachers, Nashville, Tenn.; E. Ruth Pyrtle, principal, Bancroft Elementary School, Lincoln, Nebr.; Lewis W. Smith, superintendent of schools, Berkeley, Calif.; W. R. Smithey, professor of secondary education, University of Virginia, University, Va.; Sarah M. Sturtevant, associate professor of education, Teachers College, Columbia University, New York, N. Y.; Milo H. Stuart, assistant superintendent of schools, Indianapolis, Ind.; W. L. Uhl, dean, college of education, University of Washington, Seattle, Wash.; William A. Wetzel, principal, Senior High School, Trenton, N. J.

In order to aid the survey staff and to review the findings of the survey, a lay advisory committee was also selected. The membership of the committee is as follows:

Marcus Aaron, manufacturer, Federal Reserve Building, Pittsburgh, Pa.; Charles A. Adams, attorney at law, Humboldt Bank Building, San Francisco, Calif.; Jane Addams, social worker, Hull House, 800 South Halstead Street, Chicago, Ill.; Roger W. Babson, financial expert, Babson Park, Mass.; Rhodes S. Baker, attorney at law, Republic Bank Building, Dallas, Tex.; Morgan Barradale, executive secretary, Holland Vehicular Tunnels, Holland Tunnel Offices, Canal and Varick Streets, New York, N. Y.; W. L. Bonney, legislator, Gardiner, Me.; H. Fletcher Brown, manufacturer, DuPont Building, Wilmington, Del.; J. O. Carr, attorney at law, 400 North Front Street, Wilmington, N. C.; D. H. Christensen, Christensen Construction Co., Salt Lake City, Utah; Howell Cheney, manufacturer, South Manchester, Conn.; George I. Cochran, president, life insurance company, Sixth and Olive Streets, Los Angeles, Calif.; Mrs. Gertrude Dangberg, Minden, Nev.; Mrs. Louise Dillavoux, chairman, State Orthopedic Board, Billings, Mont.; John Evans, banker, International Trust Co., Denver, Colo.; J. W. Fesler, 1517 Merchants Bank Building, Indianapolis, Ind.; A. Lincoln Filene, merchant, 246 Washington Street, Boston, Mass.; John H. Finley, journalist, New York Times, New York, N. Y.; Ernest C. Folsom, president, insurance company, Lincoln, Nebr.; J. P. Gray, fruit raiser, Nampa, Idaho; Francis Harman, editor, Hattiesburg, Miss.; Henry J. Haskell, editorial writer, Kansas City Star, Kansas City, Mo.; Henry H. Hilton, publisher, Ginn & Co., 2301 Prairie Avenue, Chicago, Ill.; Forney Hutchinson, pastor, St. Luke's Methodist Church, Oklahoma City, Okla.; Charles F. Jenkins, publisher, 232 South Seventh Street, Philadelphia, Pa.; Frank Jenkins, publisher, Eugene Daily Newspaper, Eugene, Oreg.; E. Dana Johnson, managing editor, New Mexican, Santa Fe, N. Mex.; Jerome Jones, Journal of Labor, Atlanta, Ga.; William S. Kenyon, judge, United States circuit court, Fort Dodge, Iowa; Charles F. Kettering, manufacturer and corporation head, Ridgeleigh Terrace, Dayton, Ohio; Harry R. Lewis, commissioner of agriculture, Providence, R. I.; David Littlejohn, State health department, Charleston, W. Va.; John E. Martineau, judge, United States circuit court, Little Rock, Ark.; Charles H. Mayo, physician and surgeon, Rochester, Minn.; J. D. Millar, farmer, Menomonie, Wis.; R. A. Nestos, former governor, Minot, N. Dak.; William John Norton, director of social organizations, 51 West Warren Avenue, Detroit, Mich.; Wilmot M. Odell, attorney at law, 506 Capps Building, Fort Worth, Tex.; Edward B. Passano, Williams & Wilkins Co., Mount Royal and Guilford Avenues, Baltimore, Md.; Mrs. J. K. Pettingill, president, Congress of Parents and Teachers of Michigan, 426 West Saginaw Street, Lansing, Mich.; Erskine Ramsay, industrialist, American Trust Building, Birmingham, Ala.; R. S. Rogers, banker, Dillon, S. C.; Virginius Shackleford, Orange, Va.; Bolton Smith, banker, Union & Planters Bank Building, Memphis, Tenn.; Charles Judson Smith, Lexington, Ky.; Edgar B. Stern, cotton merchant and corporation head, Stern Building, New Orleans, La.; W. J. Sutton, legislator, Cheney, Wash.; Lucius Thayer, clergyman, Harrisville, N. H.; Alvin Waggoner, attorney at law, Philip, S. Dak.; Fred Warren, editor and stockman, Cheyenne, Wyo.; William Allen White, the Emporia Gazette, Emporia, Kans.; Willis R. Whitney, director, research laboratory, General Electric Co., Schenectady, N. Y.; Benjamin Williams, lawyer and manufacturer, Proctor, Vt.; E. M. Williams, 601 Canal Road, Cleveland, Ohio; Charles F. Willis, mining engineer, 306–316 Homebuilders Building,

Phoenix, Ariz.; Matthew Woll, 210 American Federation of Labor Building, Washington, D. C.

The survey work has been divided into 24 projects. These have been assigned to a group of specialists, some of whom are employed full time at the Office of Education for the duration of the survey (indicated by F after their names); some are carrying on their work at their home institutions with brief visits to the Office of Education (indicated by P after their names); and others are connected with the regular staff of the Office of Education (indicated by R after their names). The assignments to the projects are as follows:

A. Junior high-school reorganization: Dr. Francis T. Spaulding (P), Harvard University; and O. I. Frederick (F).

B. Horizontal organization of secondary education and the secondary school population: Dr. G. N. Kefauver (P), Teachers College, Columbia University; Dr. Victor H. Noll (F); and C. Elwood Drake (F).

C. School district organization for administration and supervision: Dr. Fred Engelhardt (P), University of Minnesota; and Dr. William H. Zeigel (F).

D. School and district organization in certain counties in California: Dr. William M. Proctor (P), Stanford University; and S. S. Mayo, Stanford University (P).

E. The characteristics of small high schools: Walter H. Gaumnitz (R).

F. Selected secondary schools in smaller communities and rural areas: Dr. Emory N. Ferriss (P), Cornell University; and Dr. P. Roy Brammell (F).

G. Guidance: Dr. William C. Reavis (P), University of Chicago.

H. Administration and supervisory staff: Dr. Fred Engelhardt (P), University of Minnesota; and Dr. William H. Zeigel (F).

I. Practices in the selection and appointment of teachers: W. S. Deffenbaugh (R); and Dr. William H. Zeigel (F).

J. Provisions for individual differences, marks and marking systems and promotion plans: Dr. Roy O. Billett (F).

K. School publicity: Dr. Belmont Farley (P), National Education Association.

L. Curriculum: Dr. Arthur K. Loomis (P), Denver schools; Dr. Edwin S. Lide (F); Dr. Dora V. Smith (P), University of Minnesota; William G. Kimmel (P), Commission of the American Historical Association on the Investigation of the Social Studies in the Schools; Dr. Wilbur L. Beauchamp (P), University of Chicago; Dr. Helen M. Eddy (P), State University of Iowa; Robert S. Hilpert (P), University of Minnesota; Dr. P. Roy Brammell (F).

M. Extracurricular activities: Dr. William C. Reavis (P), University of Chicago; and George E. Van Dyke (P), University of Chicago.

N. Athletic and other activities involving interscholastic contests: Dr. P. Roy Brammell (F).

O. Articulation of high school and college: Dr. P. Roy Brammell (F).

P. Health education and health supervision: Dr. P. Roy Brammell (F).

Q. Legal and other regulatory provisions (including standards): Dr. Ward W. Keesecker (R); and Dr. William H. Zeigel (F).

R. Research initiated by the schools: Dr. William H. Zeigel (F).

S. Supervision of instruction: Dr. Roy O. Billett (F).

T. Schedule making and registration: Dr. B. Lamar Johnson (F).

U. Library service: Dr. B. Lamar Johnson (F).

V. Special reorganizations: Dr. Leonard V. Koos, associate director of the secondary school survey (P).

W. Secondary education for Negroes: Dr. Ambrose Caliver (R).

X. Growth and trends of public junior colleges: O. I. Frederick (F).

The survey is not attempting to make an exhaustive study of the entire status of secondary education, it is rather giving attention to those schools which are known to be making efforts to improve their practices.

These schools were identified with the cooperation of the State school authorities, city superintendents, high-school principals, leaders in secondary education in the universities, and other educational experts.

Following this step 50,000 carefully prepared inquiry forms were sent to the schools to be investigated and to serve as a basis for the selection of schools to be visited by the staff. The final step in the survey will be the study and elaboration of the returns which finally will be submitted to the advisory groups for criticism. At present it is planned to publish the report in a series of monographs each concerned with one or more particular projects. A summary monograph will be prepared giving the principal findings of the survey.

As a partial report of the progress of the projects has been included in the biennial chapter on secondary education. no discussion of these will be included here.

After the survey is completed it is planned to hold a series of conferences in different parts of the United States to consider the ways and means of making the work of the survey effective. It is not planned to issue recommendations for legislation on a national scale. The findings of the survey are to be used by the various localities in the way that best suits their needs. It is expected, however, that the regional conferences will be of service in stimulating public opinion and in aiding educational authorities to carry out the recommendations made by the conferences.

THE NATIONAL SURVEY OF THE EDUCATION OF TEACHERS

The following section, prepared with the assistance of Dr. E. S. Evenden, associate director of the survey, gives some of the principal features connected with the survey of the education of teachers.

Movements culminating in the National Survey of the Education of Teachers have been developing for several years. The rapid growth of public education has resulted in demands for teachers prepared in greatly increased numbers, and for many new and diversified types of work. During the past 10 years departments of education

in colleges and universities have increased 40 per cent, the number of students in teacher-preparing curricula has doubled, and the number of normal schools which have become teachers colleges has trebled. Annual losses in a teaching body of more than 1,000,000 members must be replaced, new positions must be filled, and the existing levels of teacher education raised to meet the demands of modern schools. The present oversupply of undertrained teachers presents a serious problem. The annual investment in the United States of more than a billion dollars in teachers' salaries must be made to pay the greatest possible returns.

The number of research studies in teacher training has increased many times during the past decade, but institutional and State agencies have not been in a position effectively to integrate and conduct their investigations on a nation-wide scale. Consequently, in 1930 a number of organizations interested in teacher preparation asked for a survey by the Federal Government in order to secure for the country as a whole, usable information applicable to the larger problems of teacher education.

The request for this survey originated with the American Association of Teachers Colleges and was seconded by the Association of Deans of Schools of Education, the National Council of State Superintendents and Commissioners of Education, and the North Central Association of Colleges and Secondary Schools. Through a joint committee representing these organizations Congress was petitioned to give support to the survey.

In accordance with this request, and in conformity with the present policy of the Office of Education, the Seventy-first Congress in an act approved May 14, 1930, appropriated $200,000 for this investigation, of which $50,000 was appropriated the first year, $80,000 the second year, and the balance to be available the third year. The Department of the Interior, through its Office of Education, was authorized in this investigation "to make a study of the qualifications of teachers in public schools, the supply of available teachers, the facilities available and needed for teacher training including courses of study and methods of teaching."

The survey began officially, July 1, 1930, and will extend over a period of three years. Secretary of the Interior Ray Lyman Wilbur appointed Dr. Edward S. Evenden, of Teachers College, Columbia University, as associate director of the survey, working with Dr. William John Cooper, Commissioner of Education, who serves as director. The senior specialist in teacher training of the Office of Education, Benjamin W. Frazier, will assist in administrative matters and research. A large number of outside research workers, some of whom are nationally known, will participate in the investigation.

The board of consultants appointed by Secretary Wilbur to act as advisors in this undertaking are as follows:

Dr. William C. Bagley, Teachers College, Columbia University, New York, N. Y.; Dr. W. W. Charters, Ohio State University, Columbus, Ohio; Dr. George W. Frasier, president, Colorado State Teachers College, Greeley, Colo.; Dean William S. Gray, University of Chicago, Chicago, Ill.; Dean M. E. Haggerty, University of Minnesota, Minneapolis, Minn.; Dean Henry W. Holmes, Harvard University, Cambridge, Mass.; Dean William W. Kemp, University of California, Berkeley, Calif.; Dr. W. P. Morgan, president, Western Illinois State Teachers College, Macomb, Ill.; Dr. Shelton Phelps, George Peabody College for Teachers, Nashville, Tenn.; Hon. Payson Smith, Commissioner of Education, Boston, Mass.;[6] Dr. Guy S. Snavely, president, Birmingham-Southern College, Birmingham, Ala. (also secretary of the Association of Colleges and Secondary Schools of the Southern States); Dr. D. B. Waldo, president, Western State Teachers College, Kalamazoo, Mich.

Meetings of the board of consultants have been held as follows: Ohio State University, July 4, 1930; Office of Education, Washington, D. C., September 12–13, 1930; Chicago, December 10–11, 1930; and Detroit, February 22, 1931.

A professional advisory committee has been appointed. It includes in its membership most of the leading national associations and agencies that are interested in the preparation of teachers. This committee will meet annually at the time of the Department of Superintendence meeting, and if necessary on call by the Commissioner of Education. The first meeting was held at Detroit in February, 1931. This committee will bring to the survey staff the benefit of the different viewpoints of its several organizations on the various aspects of the investigation. At the same time, the members will secure the first-hand knowledge necessary to interpret to their respective groups the nature, purposes and program of the survey. It is hoped that members of the committee and the many separate groups they represent may also profit by opportunities afforded in the conferences to share experiences in their common task of upbuilding the teaching profession in this country. A list of the members of the professional advisory committee is given herewith:

Ballou, Frank W., secretary, Commission on the Investigation of Social Studies in the Schools, Thirteenth and K Streets NW., Washington, D. C.

Bogle, Sarah C. N., assistant secretary, American Library Association, 520 North Michigan Avenue, Chicago, Ill.

Brewington, Ann, president, National Association of Commercial Teacher Training Institutions, University of Chicago, Chicago, Ill.

Crozier, Norman R., president, Department of Superintendence, National Education Association, superintendent of schools, Dallas, Tex.

Davis, J. Thomas, member, American Association of Junior Colleges in the Teacher Training Division, John Tarleton Agricultural College, Stephenville, Tex.

[6] Succeeded Hon. John A. H. Keith, who died February, 1931.

Denny, George H., president, National Association of State Universities in the United States of America, University of Alabama, University, Ala.

Eisner, Miriam D., president, department of classroom teachers, National Education Association, 3098 California Street, San Francisco, Calif.

Ellis, W. D., chairman, municipal normal school and teachers college section, National Education Association, Richmond Normal School, Richmond, Va.

Fife, Robert H., member, Modern Language Association of America, Columbia College, Columbia University, New York, N. Y.

Hall, Elizabeth, president, department of supervisors and directors of instruction, National Education Association, assistant superintendent of schools, Minneapolis, Minn.

Hedrick, E. R., member, American Mathematical Society, University of California, at Los Angeles, Calif.

Heffernan, Helen, president, department of rural education, National Education Association, State department of education, Sacramento, Calif.

Holmes, D. O. W., president, Association of Colleges for Negro Youth, dean, college of education, Howard University, Washington, D. C.

Holmes, Margaret C., president Association for Childhood Education, 136 Cambridge Place, Brooklyn, N. Y.

Honor, Leo L., member, National Council for Jewish Education, director of the college of Jewish studies, 1800 Selden Street, Chicago, Ill.

Hoppock, Robert, field secretary, National Vocational Guidance Association, 425 west One hundred and twenty-third Street, New York, N. Y.

Hubert, B. F., member, Negro Land-Grant College Presidents Association, Georgia Argicultural and Mechanical College for Negroes, Savannah, Ga.

Jacobs, Emma S., president, department of supervisors and teachers of home economics, National Education Association, Dennison School, Washington, D. C.

Johnson, Rev. George, director, department of education, National Catholic Welfare Conference, 1312 Massachusetts Avenue NW., Washington, D. C.

Kelly, Robert L., executive secretary, Council of Church Boards of Education, 111 Fifth Avenue, New York, N. Y.

Krey, A. C., member, American Historical Association, University of Minnesota, Minneapolis, Minn.

Lyman, Rollo, president, National Council of Teachers of English, school of education, University of Chicago, Chicago, Ill.

McAlister, H. L., president, Teachers College Extension Association, State Teachers College, Conway, Ark.

McHale, Kathryn, executive and educational secretary, American Association of University Women, 1634 Eye Street NW., Washington, D. C.

Mann, C. R., director, American Council on Education, 744 Jackson Place, Washington, D. C.

Marquis, R. L., member, Southern Public Teachers Colleges, North Texas State Teachers College, Denton, Tex.

Miller, C. M., president, American Vocational Association, State director of vocational education, Topeka, Kans.

Morgan, Russell V., president, Music Supervisors National Conference, supervisor of music, Cleveland, Ohio.

Myers, George F., member, American Association of Workers for the Blind, supervisor sight saving and braille, Minneapolis, Minn.

Nisonger, H. W., president, American Association for the Advancement of Agricultural Teaching, Ohio State University, Columbus, Ohio.

Peterson, Elmore, president, National University Extension Association, University of Colorado, Boulder, Colo.

Plenzke, C. H., assistant State superintendent, Madison, Wis., representing county normal schools.

Plummer, Louis E., president, department of secondary school principals, National Education Association, Fullerton Union High School, Fullerton, Calif.

Rightmire, George W., president, Association of Land-Grant Colleges and Universities, Ohio State University, Columbus, Ohio.

Roys, Cassie F., president, department of elementary school principals, National Education Association, 2609 Bristol Street, Omaha, Nebr.

Smith, Z. M., president, department of vocational education, National Education Association, State director of vocational education, Indianapolis, Ind.

Steele, N. E., president, National Association of Secretaries of State Teachers Association, Perry Building, Sioux Falls, S. Dak.

Steimle, C. P., member, American Association of Collegiate Registrars, Michigan State Normal College, Ypsilanti, Mich.

Townsend, Caroline I., president, kindergarten-primary department, National Education Association, 207¾ North Berendo, Los Angeles, Calif.

Uhl, W. L., member, American Association for Advancement of Science, University of Washington, Seattle, Wash.

Walters, J. E., president, National Association of Placement and Personnel Officers, Purdue University, La Fayette, Ind.

Williams, Fannie C., president, National Association of Teachers in Colored Schools, Valena C. Jones Elementary Schools, New Orleans, La.

Williams, W. T. B., member, National Association of Teachers in Colored Schools, college department, Tuskegee Normal and Industrial Institute, Tuskegee Institute, Ala.

Winslow, Leon L., secretary, Federated Council on Art Education, Carrollton and Lafayette Avenues, Baltimore, Md.

Wright, Frank W., State director of teacher training, director of teacher training, Boston, Mass.

Wright, J. C., director, Federal Board for Vocational Education, 1523 L Street NW., Washington, D. C.

Zuill, Frances, secretary, American Home Economics Association, State University of Iowa, Iowa City, Iowa.

The appointment of an advisory committee composed of representative lay members from each of the States has also been planned.

Staff organization.—The work of the survey of the education of teachers is being done by a staff composed of three kinds of workers: (1) The central staff composed of full-time workers, most of whom are located in Washington; (2) a part-time staff of specialists who are giving some fraction of their time to specific parts of the survey; and (3) a cooperating staff or group of individuals who have no official connection with the survey but who are conducting studies, usually in connection with Ph. D. theses, which are related to some phase of the survey and for which the survey may gather needed data or turn over to the individuals data already in its possession.

During the first year the full-time staff members consisted of:

Benjamin W. Frazier, senior specialist in teacher training of the Office of Education and assistant to the director; Dr. Guy C. Gamble, senior specialist in educational surveys; and Gilbert L. Betts, specialist in tests and measurements.

In addition to these, 35 persons have been employed from the civil-service lists for periods of two or three months in connection with the work of handling the returns from inquiry No. 1—the questionnaire to all teachers.

Additional appointments to the central staff have already been made for the second year as follows:

Harold Leuenberger, full-time assistant in curriculum research with headquarters in Washington and Greeley; Dr. Louise Omwake, full-time assistant in curriculum research with headquarters in Minneapolis and Washington; Royal Bloom, full-time assistant in curriculum research with headquarters in Minneapolis and Washington; Dr. Frank K. Foster, specialist in practice teaching, summer schools, and graduate study.

The part-time staff members not including the associate director who gave some fraction of their time to the survey during the first year were:

Dr. Earle U. Rugg, head of the department of education, State Teachers College, Greeley, Colo., and specialist in curricular problems for the preparation of teachers in normal schools and teachers colleges; Dr. W. E. Peik, assistant professor of education at the University of Minnesota, and specialist in curricular problems for the preparation of teachers in colleges and universities; Dr. Douglas Waples, director of the graduate school of library research, University of Chicago, and specialist in library facilities in the preparation of teachers; Dr. Robert B. Raup, associate professor of education, Teachers College, Columbia University, and specialist in curricular research; Dr. Ned H. Dearborn, professor of education, New York University, and specialist in the inservice training of teachers; Dr. Frank W. Hubbard, research division of the National Education Association, and specialist in the supply and demand of teachers; Dr. Ambrose Caliver, specialist in Negro education, Office of Education, Washington, D. C., and specialist in curricular problems in the preparation of Negro teachers.

The cooperating staff includes up to the present time the following individuals whose projects are also listed:

Hal G. Blue, Colorado State Teachers College, Greeley, Colo. The social and economic background of students in liberal arts colleges.

A. R. Robinson, Jamaica Training School for Teachers, New York. The professional nature of the courses in arithmetic given in a selected number of normal schools and teachers colleges in the preparation of elementary teachers.

Robert C. Wiltbank, principal of William S. Peirce Public School, Philadelphia, Pa. The preparation of teachers of the deaf and hard of hearing.

Walter H. Adams, graduate student, Teachers College, Columbia University. The placement work of normal schools and teachers colleges and the personnel of placement directors.

A. W. Hurd, Institute of School Experimentation, Lincoln School, Teachers College. The training of teachers of science.

Robert H. Morrison, Colorado State Teachers College, Greeley, Colo. Administrative organizations of normal schools and teachers colleges.

Special studies are under consideration in the preparation of teachers of mathematics, English, music, and commercial subjects, as well as other detailed studies such as the preparation of the teachers who were unable to secure positions in a particular State.

At the second meeting of the board of consultants it was evident that many of the problems concerning the preparation of teachers sooner or later involved an evaluation of teaching ability. Accordingly it was voted to secure the advice of a small group of specialists in educational measurement to consider the entire measurement program of the survey. Such a conference was held in Washington in November, 1930. Those present were: Prof. E. L. Thorndike, Teachers College, Columbia University; Dean M. E. Haggerty, college of education, University of Minnesota; Prof. Truman L. Kelley, Harvard University; Prof. M. R. Trabue, director of the research division, University of North Carolina; Prof. Karl J. Holzinger, University of Chicago; and Dr. E. S. Evenden, Benjamin W. Frazier, and Dr. Guy C. Gamble of the survey staff.

The entire measurement program of the survey was discussed and proposals made for submitting some of the more important controversial issues to detailed measurement.

These plans were then submitted to the board of consultants at their next meeting in Chicago and modified in terms of the limited time and money at the disposal of the survey.

The major project authorized and undertaken during the fiscal year 1930–31 is the collection of data on teacher supply and demand, the qualifications and general status of public-school teachers, supervisors, and administrators, and other basic information necessary in different survey studies. Approximately a million brief inquiry forms were distributed through State and city superintendents of schools and heads of institutions. Excellent cooperation was afforded by these officers. Approximately 463,000 inquiries were returned. The data have been transferred to Hollerith cards, which are now being mechanically tabulated. The returns will be available early in 1932.

Projects authorized and under way during the first eight months of the survey, in addition to those previously mentioned, include the preparation of an extensive annotated bibliography on teacher preparation; a thorough study of teacher-preparing curricula in colleges and universities; library facilities of teachers colleges; a coordinate investigation of curricular problems in teachers colleges

and normal schools; teacher training inservice; reading, interests of teachers; development of tests for teaching aptitudes.

Special investigations have been planned for the following topics in addition to the completion or extension of the studies started during the first year:

Dr. Frank K. Foster will make special investigations of summer-school work, the practice teaching facilities, and graduate work offered for teachers.

Doctor Dearborn will extend his analysis of the inservice programs for teachers beyond the five studies now under way.

The data to be obtained through visits to selected institutions by the curriculum specialists, Doctor Rugg and Doctor Peik, will be obtained during the fall and spring quarters. The other studies for the curriculum will be completed so far as gathering data is concerned.

The statistical investigation of the preparation, experience, and service load of staff members of teacher-training institutions will be conducted during this year under the general direction of Doctor Gamble.

The detailed analysis of existing studies of student personnel with a supplementary study of students in a few representative institutions will be made by Mr. Frazier.

A more detailed study of placement data in various forms of teaching will be made by the central staff in cooperation with Walter Adams and others.

A continuation of any parts of the measurement program which prove feasible in connection with the quantitative study of any of the controversial issues will be made by Mr. Betts.

It is at present under consideration that additional special reports and summaries of existing material will be made of some of the controversial issues which should be more carefully analyzed but which do not lend themselves so readily to quantitative study. An attempt will be made to have these analyses made by the individual in the country who has given the topic the most detailed study. These critical reports will be of value in proportion to the clarity with which present conditions are discussed and proposals for future improvement and additional study are made.

Reference has already been made to the number of cooperating studies which have been started during the first year. It is expected that an increased number of these will be inaugurated during the second year.

It is believed that the policy adopted by the survey of securing the counsel and advice of the many groups interested in the education of

teachers will result in the more complete realization of plans to make the survey of maximum possible benefit to workers in the field. Requests have been made of practically all the higher institutions definitely engaged in teacher preparation, as well as the State superintendents of education and others, to submit the problems that appear most vital to them. The replies received to these requests are given full recognition in the special investigations thus far undertaken. However, the further cooperation of all groups and agencies concerned in forwarding the investigation is essential if the purpose of the survey to point the way to better teaching is to be completely attained.

NATIONAL SURVEY OF SCHOOL FINANCE

The need for a comprehensive survey of school finance has been definitely voiced in the past year by the National Education Association and by the National Association of State Superintendents and Commissioners of Education, as well as by other prominent educational organizations. Owing to the fact that 25 States are contemplating changes in methods of taxation which directly or indirectly will affect school revenues, and since 86 per cent of the bills for school legislation in 1929–30 were conceived with school finance in mind, there is great need for reliable data which can be used to guide school authorities of the country in developing sound financial programs for the public schools.

Request was made of Congress for the support of such a survey to cover a period of four years, and on February 14, 1931, an act was approved authorizing the expenditure of a sum not to exceed $350,000 for a study of the sources and apportionment of school revenues and their expenditure in the United States. Of this sum, $50,000 was made available July 1, 1931, and it is expected that $100,000 will be spent each year for the next three years until the survey is completed.

The Commissioner of Education is director of the survey, and Dr. Paul R. Mort, director of the school of education, Teachers College, Columbia University, has been named the associate director in active charge of the work. Timon Covert, specialist in school finance of the Office of Education, has been named coordinator.

As in the other nation-wide surveys conducted by the Office of Education, special committees are to be chosen from the field to act in an advisory capacity. The first of these committees, known as the board of consultants, has already been chosen and includes 17 members as follows:

William G. Carr, director of research, National Education Association, Washington, D. C.; Lotus D. Coffman, president, University of Minnesota, Minneapolis, Minn.; Albert S. Cook, State superintendent of schools, Baltimore, Md.;

N. R. Crozier, superintendent of schools, Dallas, Tex.; Fred R. Fairchild, professor of political economy, Yale University, New Haven, Conn.; Mark Graves, State tax commissioner, Albany, N. Y.; Robert M. Haig, professor of business administration, Columbia University, New York, N. Y.; Arthur N. Holcombe, professor of government, Harvard University, Cambridge, Mass.; L. F. Loree, president, Delaware and Hudson Railroad, New York, N. Y.; Harley L. Lutz, professor of public finance, Princeton University, Princeton, N. J.; Felix M. McWhirter, president, Peoples State Bank, Indianapolis, Ind.; Fred W. Morrison, State tax commissioner, Raleigh, N. C.; Henry C. Morrison, professor of education, University of Chicago, Chicago, Ill.; Orville C. Pratt, superintendent of schools, Spokane, Wash.; George D. Strayer, director of educational research, Teachers College, Columbia University, New York, N. Y.; Fletcher Harper Swift, professor of education, University of California, Berkeley, Calif.; Rolland A. Vandergrift, director of finance, State department of finance, Sacramento, Calif.

A professional advisory committee of approximately 25 members is to be appointed representing educational groups, business managers, and accounting groups. Likewise there will be named in the near future a lay advisory committee.

The Commissioner of Education called the board of consultants together September 14, 1931. At this meeting the associate director presented a tentative outline of procedure which was criticized by the board. The board will be asked to meet as occasion demands to review progress on the survey.

CHAPTER XXI

EDUCATIONAL BOARDS AND FOUNDATIONS

By Henry R. Evans
Editorial Division, Office of Education

Contents.—General Education Board—Rockefeller Foundation—Carnegie Corporation of New York—Carnegie Foundation for the Advancement of Teaching—Jeanes Fund—John F. Slater Fund—Phelps-Stokes Fund—Commonwealth Fund—Julius Rosenwald Fund—American Field Service Fellowships for French Universities—Commission for Relief in Belgium Educational Foundation—Baron de Hirsch Fund—Kahn Foundation for Foreign Travel of American Teachers—Payne Fund.

GENERAL EDUCATION BOARD[1]

The General Education Board has, since its foundation in 1902 to June 30, 1930, appropriated $214,777,796.82 for the promotion of education in the United States. Of this sum $152,921,379.72 was paid to colleges and other institutions for whites; $16,613,964.20 to institutions for negroes; and $1,333,700.91 for various educational purposes.

The sum of $16,430,041.35 was appropriated by the board for the year ended June 30, 1930; in addition there was appropriated from income of the Anna T. Jeanes fund for negro rural schools the sum of $8,430.63; making a grand total of $16,438,471.98. Of the total of $16,430,041.35, $8,402,000 represents appropriations from principal and $8,028,041.35 appropriations from income.

The receipts of the General Education Board were as follows: Balance, June 30, 1929, $14,367,364.79; refunds on account of payments made in previous years, $270.04; income, July 1, 1929, to June 30, 1930, $6,217,809.40; total, $20,585,444.23.

The statement of disbursements of income for educational purposes is as follows:

For whites.—American Journal of Pathology, $7,500; universities and colleges, endowment and general purposes, $2,721,647.90; to increase teachers' salaries, $18,276.04; county school consolidation, $296.53; fellowships, $31,867; humanities, $931,136.61; industrial art, $283,714.10; Lincoln School, $45,890.41; medical schools,

[1] Data compiled from report filed with the Secretary of the Interior.

$1,260,230.74; National Academy of Sciences, $15,256.39; National Research Council, $9,375; public education (colleges), $211,347.60; rural school agents, $8,771.32; State departments of education (divisions of information and statistics, schoolhouse planning and construction, school libraries, etc.), $111,502.86; study of learned publications in the United States, $7,928.18; traveling professors, $3,500.

For negroes.—Anna T. Jeanes fund, $76,750; colleges and schools; endowment and general purposes, $1,119,832.11; to increase teachers' salaries, $4,733.61; division of negro education, $4,000; equipment for negro schools, $5,000; expenses of special students at summer schools, $4,273; fellowships, $41,850; John F. Slater fund, $90,525; medical schools, $127,789.40; National Research Council fellowship, $2,500; rural school agents, $83,433.53; summer schools, $14,830.74; training negro teachers in Arkansas high schools, $6,000.

Miscellaneous.—Conferences, $7,785.95; fund for miscellaneous items, $1,510.26; improvement of accounting systems in educational institutions, $2,549.51; rural school supervision, $30,763.98; short-term fellowships, $5,750; studies in the field of public education, $20,255.40.

Administration, $234,839.19. Grand total, $7,553,211.36. Income on hand June 30, as accounted for in balance sheet, $13,032,232.87.

President: Trevor Arnett, 61 Broadway, New York, N. Y.

Secretary: William W. Brierley, 61 Broadway, New York, N. Y.

ROCKEFELLER FOUNDATION

The Rockefeller Foundation and the Laura Spelman Rockefeller Memorial were consolidated on January 3, 1929. Funds available for the year were $89,536,958.24. Expenditures for universities and other educational institutions, research institutions and organizations, special committees and commissions, public health, administration, and other activities amounted to $19,039,127.23.

In the field of public health during 1929 the Rockefeller Foundation offered and administered a total of 187 fellowships, divided into 44 resident fellowships, chiefly limited to Central Europe, and traveling fellowships, held by men from many parts of the world. There were 66 fellows who came from countries in Europe, 24 from the United States, 37 from other parts of North and South America and from the West Indies, and 16 from the Far East, including the Philippines, Ceylon, China, and India. Says the annual report of the foundation:

> With the year 1929 there began a transition in the policy of the Rockefeller Foundation in connection with teaching and investigation in medicine. During the years 1920–1928 inclusive, the activities of the foundation in this field, through its then existing division of medical education, were in large part based upon a policy of attempting to aid, in several countries, the teaching

functions of institutions of medical education. Requests in behalf of research as such, often unrelated to the training of medical students or future teachers of medicine, were deferred or declined in favor of the claims for the development and improvement of schools or faculties in their function as teaching agencies.

The year 1929 marks the initiation of a policy under which research and the advancement of knowledge in the medical sciences may be considered as the principal interest, thus taking the place of a previously predominating interest in the welfare of schools or faculties of medicine as institutions. Naturally both types of program may be observed in force during a transitional period. Although the distinction between research as a means of advancing knowledge and research as a method of teaching may be debatable, the general bearing of the policy now adopted is clear.

President: Max Mason, 61 Broadway, New York, N. Y.
Secretary: Norma S. Thompson, 61 Broadway, New York, N. Y.

CARNEGIE CORPORATION OF NEW YORK

Grants totaling $3,709,250 were made by the Carnegie Corporation of New York during the year ending September 30, 1930, in support of educational enterprises. This organization was established by Andrew Carnegie in 1911 "for the advancement and diffusion of knowledge and understanding" among the people of the United States, Canada, and the British colonies.

The sum of $204,500 was granted for studies in dental education, architecture, engineering, costs of medical care, land economics and public utilities, Alaskan and second generation oriental educational opportunities, nutrition, singing, vitamins, leukemia, physics, and the durability of printed records. Learned societies received grants totaling $125,000.

The largest grants of the year were made in behalf of institutions and organizations such as Dalhousie University, $400,000 for endowment; Pan American Union, $300,000 for building additions; Carnegie endowment for international peace, $125,000 for its work in the United States; Acadia University, $200,000 for endowment; Australian Educational Research Council, $250,000 for support; and $100,000 to Newfoundland Memorial College for general expenses.

Grants were made in the fine arts to Beloit, Oberlin, Princeton, St. John's, Kansas, Vassar, Wells, and Williams. Arts scholarships for advanced study and sets of arts teaching equipment were provided for by grants totaling $80,000. The American Federation of Arts sponsored two art exhibits in the United States, one of Canadian art and one of Mexican art, under grants from the corporation.

President: Frederick P. Keppel, 522 Fifth Avenue, New York, N. Y.

Secretary: James Bertram, 522 Fifth Avenue, New York, N. Y.

CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

The Carnegie Foundation for the Advancement of Teaching, in its report for the year ended June 30, 1929, expresses its appreciation of a proposed grant by the Carnegie Corporation of $5,400,000 for the purpose of providing annuities for college teachers to supplement the retiring allowances of the foundation. Up to the close of the fiscal year the foundation since its inception had expended more than $18,817,000 in teachers' retiring pensions and allowances, the largest amount ever paid to a professional group by a nongovernmental agency, says the report. The money was divided among 1,633 persons.

Revised schedules for teachers' pensions given in the report, in accord with a change announced May, 1929, show that teachers who become 65 years of age in 1931 will receive only $1,600 a year in 1931 instead of $2,100, as previously announced.

During the year the trustees received a total income of $1,647,387.91. Current expenditures were as follows:

(*a*) General endowment: Retiring allowances and pensions in institutions on the associated list, $1,376, 945.90; retiring allowances and pensions granted to individuals, $68,744.51; total retiring allowances and pensions, $1,445,690.41; pension studies, $8,440.24; expenses of administration, $90,542.51; publication, $1,155.52; total, $1,545,828.68.

(*b*) Division of educational inquiry: General, $8,767.97; Pennsylvania study, $64,781.27; study of legal education, $30,074.73; study of college athletics, $10,463.42; other studies, $8,067.02; total, $122,154.41. Grand total, $1,667,983.09.

The report is the last issued under Henry S. Pritchett as president of the foundation. He was succeeded August 1, 1930, by Dr. Henry Suzzallo, former president of the University of Washington.

President: Henry Suzzallo, 522 Fifth Avenue, New York, N. Y.

Secretary: Clyde Furst, 522 Fifth Avenue, New York, N. Y.

JEANES FUND

The Jeanes fund, for the improvement of negro rural schools, cooperated during the session ending June 30, 1928, with public school boards and superintendents in 321 counties in 14 States.

The 324 Jeanes teachers, paid partly by the counties and partly through the Jeanes fund, visited regularly in these counties 10,157 country schools, making in all 53,796 visits, and raising for the purpose of school improvement $541,538. The total amount of salaries paid to the Jeanes teachers was $282,250, of which the sum of $167,085 was paid by the public-school authorities and $115,165 through the Jeanes fund.

The business of these traveling teachers, working under the direction of the county superintendents, is to help and encourage the rural teachers; to introduce into small country schools simple home industries; to give lessons on sanitation, cleanliness, etc.; to promote the improvement of schoolhouses and school grounds; and to organize clubs for the betterment of the school and neighborhood.

The following disbursements were made by the Jeanes fund for 1929–30: Alabama, 22 counties, $8,830.00; Arkansas, 15 counties, $6,674.95; Florida, 16 counties, $5,520; Georgia, 28 counties, $8,543.34; Kentucky, 13 counties, $5,336; Louisiana, 19 counties, $7,458.40; Mississippi, 25 counties, $7,544; Missouri, 4 counties, $2,512.50; North Carolina, 43 counties, $12,055; Oklahoma, 5 counties, $1,597.50; South Carolina, 20 counties, $9,250.25; Tennessee, 22 counties, $5,695; Texas, 22 counties, $6,965; Virginia, 57 counties, $13,340; total, $101,321.94.

President: James H. Dillard, Charlottesville, Va.

Secretary: John T. Emlen, Fifth and Chestnut Streets, Philadelphia, Pa.

JOHN F. SLATER FUND

The following appropriations covering the year 1928-29 were made by the education committee of the John F. Slater fund: Colleges, $42,075; county training schools and other high schools, $150,000; special work, $2,000; total, $195,000.

For several years the Slater fund has been paying, or assisting in paying, the salary of a professor in the English or science department of 30 colleges. The professors to whose salaries the contributions have been made are graduates of, or have attended, Harvard, Yale, Dartmouth, Columbia, Chicago, Northwestern, California, Illinois, Howard, or some other well-known institution.

In 1928–29 there were 368 county training schools in 13 States, The amount contributed through the Slater fund (largely aided by the General Education Board) for salaries and equipment was $135,866, while public tax funds spent $1,886,852. The total expenditure in the 368 county training schools in 1928–29, including contributions from the Smith-Hughes fund, the Rosenwald fund, and various local sources, was $2,201,407.

President: James H. Dillard, Charlottesville, Va.

Secretary: Gertrude C. Mann, Box 418, Charlottesville, Va.

PHELPS-STOKES FUND

The act of incorporation of the Phelps-Stokes fund directs the trustees to use the income for "the erection or improvement of tenement-house dwellings in New York City and for educational purposes in the education of negroes, both in Africa and the United

States, North American Indians, and needy and deserving white students." The capital of the fund is approximately $1,200,000.

Since the inauguration of the fund in 1911, appropriations have been made to various organizations interested in the welfare of negroes in America and Africa. Appropriations have also been made with considerable regularity to a number of negro schools of the secondary and collegiate types, such as Fisk University, Atlanta University, Hampton Institute, Tuskegee Institute, Calhoun Colored School, Penn Normal and Industrial School, and Lincoln University.

Fellowships have been established in the University of Virginia and the University of Georgia for the study of negroes in various communities. Both universities accepted these fellowships with the understanding that graduate students should from time to time make a study of some phase of the life and conditions of negroes, and that the universities would publish the theses. A special fund has been established at the George Peabody College for Teachers, at Nashville, Tenn., to enable the teachers and students there to visit colored schools and see the actual progress which negroes are making.

A report covering the work and expenditures of the fund since its foundation is in preparation and will be available for distribution early in 1931.

President: Anson Phelps Stokes, 2408 Massachusetts Avenue NW., Washington, D. C.

Secretary: I. N. Phelps Stokes, 101 Park Avenue, New York, N. Y.

COMMONWEALTH FUND

The Commonwealth fund during the fiscal year ending September 30, 1929, completed its work in Austria, and adopted a new health program. A child guidance clinic was opened in London. The three major interests of the fund, according to the eleventh annual report of the general director, are the enrichment of British-American relations; the development of sound and progressive measures in public health; and the advancement of technical knowledge and public understanding in the field of mental hygiene. The following appropriations were voted for 1928–29: Commonwealth fund fellowships (division of education), $250,820; division of publications, $94,000; division of rural hospitals, $305,300.93; health demonstrations (general public health), $159,030.33; legal research, $74,625; mental hygiene and child guidance, $414,398; mental hygiene and child guidance in England, $68,500. Special grants: Public health and preventive medicine, $215,910; mental hygiene and child guidance, $80,500; miscellaneous, $365,675. Grand total, $2,028,759.26.

Special grants are made chiefly to institutions and organizations for the conduct of various educational, social, and philanthropic

undertakings, with which the fund has no administrative connection, direct or indirect.

President: Edward S. Harkness, Fuller Building, Fifty-seventh Street and Madison Avenue, New York, N. Y.

Secretary: Barry C. Smith, Fuller Building, Fifty-seventh Street and Madison Avenue, New York, N. Y.

JULIUS ROSENWALD FUND

The Julius Rosenwald fund was incorporated in 1917, under the laws of the State of Illinois, for charitable, scientific, educational, and religious purposes. During the year ended June 30, 1930, the fund expended $1,875,655 upon activities of which the major items were a continuation of the fund's historic program in the building of negro public schools and a substantial beginning on new programs, especially aid to the other aspects of negro education and welfare, help in the development of means for the better distribution of medical services to the entire population, and contributions to child growth and general education and to social studies.

President: Edwin R. Embree, 900 South Homan Avenue, Chicago, Ill.

Secretary: Alfred K. Stern, 900 South Homan Avenue, Chicago, Ill.

AMERICAN FIELD SERVICE FELLOWSHIPS FOR FRENCH UNIVERSITIES (INC.)

The American Field Service Fellowships for French Universities, which is administered by the Institute of International Education, has for its objective the establishment of "an enduring memorial for the 127 field service men who gave their lives in the Great War." It endeavors to bring about a better realization and appreciation of the contributions of French universities to science and learning, and to promote good will between France and the United States. Seven fellowships were awarded for the scholastic year 1929–30.

President: Paul D. Cravath, 2 West Forty-fifth Street, New York, N. Y.

COMMISSION FOR RELIEF IN BELGIUM EDUCATIONAL FOUNDATION (INC.) AND THE FOUNDATION UNIVERSITAIRE

The Commission for Relief in Belgium Educational Foundation (Inc.) during the calendar year 1929 made an unrestricted gift of $25,000 to aid in the establishment of the Prince Leopold Institute of Tropical Medicine at Antwerp, with a commitment for a second year. The foundation expended $62,407.76 in 1929 in maintaining fellowships, including a loan reserve of $2,183.68—of this amount the American fellows cost $9,459.66, the Belgian graduate fellows $34,-811.22, and the Belgian advanced fellows $15,953.20.

The Foundation Universitaire during the year 1928–29 increased its capital funds by 367,443.90 francs to a total of 56,283,458.90 francs on September 30, 1929, the end of the fiscal year. Loans to students, traveling fellowships and grants (except for the United States), and aid to publications constituted some of the general activities of the foundation.

President: Herbert Hoover.

Secretary: Perrin C. Galpin, 42 Broadway, New York, N. Y.

BARON DE HIRSCH FUND

The Baron de Hirsch fund, the endowment of which amounts to $3,800,000, is used for the aid of resident Jewish immigrants. In addition to the work conducted by the trade school, it also grants agricultural scholarships to Jewish young men between the ages of 16 and 19, at the State Institute of Applied Agriculture, Farmingdale, Long Island, N. Y., and the State School of Agriculture, Delhi, N. Y. The Trade and Industrial School, established by the fund in New York City, offers courses in various vocational occupations.

President: S. G. Rosenbaum, Woolworth Building, New York, N. Y.

Assistant Secretary: George Bookstaver, Woolworth Building, New York, N. Y.

KAHN FOUNDATION FOR THE FOREIGN TRAVEL OF AMERICAN TEACHERS

The Kahn Foundation for the Foreign Travel of American Teachers was organized for the purpose of enabling "men of proved intellectual attainments to enjoy, during one year or more, sufficient leisure and freedom from all professional pursuits or preoccupations, to enter into personal contact with men and countries they might otherwise never have known." The only activity of the foundation for the past year was the election of Dr. Robert P. Brooks, of the University of Georgia, as the Kahn fellow for 1930–31. The stipend of the fellowship is $5,000.

President: Edward D. Adams, 598 Madison Avenue, New York, N. Y.

Secretary: Frank D. Fackenthal, 531 West One-hundred-sixteenth Street, New York, N. Y.

PAYNE FUND

The Payne fund, which was organized on September 1, 1927, and incorporated April 9, 1929, under the membership corporations law of the State of New York, was founded to provide for enlargement of the activities and interests that evolved during the work of

members of the fund who first organized as the National Committee for the Study of Juvenile Reading on April 1, 1925. The purpose of the fund is to develop an increased understanding of youth and the problems of its participation in organized society.

Educational radio for youth is one of the important interests developed by the Payne fund. The fund during the year 1929 granted the services of Armstrong Perry, radio counsel of the organization, and a sum of $7,500 to the Federal Advisory Committee on Education to further the work of the committee. The annual report for 1929 declares that the Payne fund has recognized that its most effective services in the radio field would be "to bring the attention of national educational authorities, governmental agencies (State and Federal), broadcasting organizations, volunteer broadcasting talent and potential financial supporters, all the information, demonstration, and research data that could be gathered with the central idea that these authorities, organizations and individuals would then be in a position to develop the intelligent policy necessary to protect the highest public interest inherent in the radio as an agency for service to youth."

The Payne fund also participates in constructive studies of motion-picture values. The first practical step in this direction was taken in the fall of 1927, when the fund provided for the formation of the National Committee for Study of Social Values in Motion Pictures, and underwrote a 2-year period of survey and planning. The program of the foregoing committee included among its studies the following: (1) Economic, legal, and business aspects of the motion-picture industry; (2) effects of American produced motion pictures on international relationships with special reference to attitudes created in other lands toward America and Americans; (3) effects of motion pictures on the health of children.

The following investigations are being considered for future production: (1) A study of what constitutes good and bad pictures; (2) effects of current motion pictures on the standards of social and national life; (3) a study of the experience of penologists with the exhibition of motion pictures in prisons, reformatories, etc.; (4) a study of the effect of motion pictures on the general health of children of various ages and types, their physical and mental development, their general efficiency, their conduct and behavior; and (5) a comparative study of a movie and a nonmovie neighborhood.

President: H. M. Clymer, 1 Madison Avenue, New York, N. Y.

Secretary: Ella Phillips Crandall, 1 Madison Avenue, New York, N. Y.

CHAPTER XXII

RECENT PROGRESS AND CONDITION OF MUSEUMS

By Laurence Vail Coleman
Director, The American Association of Museums

Contents.—I. Statistics of public museums: Fields; income; control; distribution by size of community; geographic distribution; buildings. II. Statistics of university, college, and school museums: Fields; buildings. III. The number of museums. IV. Comparison of State and regional development. V. Trends in museum work: Outdoor museums; branch museums; museums in small communities; progress in exhibition; museum instruction; public relations; national and international work.

The years 1929 and 1930 were years of active growth among museums. New institutions were founded. New buildings were erected and many existing ones were enlarged. Educational work was extended and improved. The ranks of the profession were strengthened. Museum work was accorded greater recognition and gained signally in value and effectiveness.

These past two years were the end of a decade, and there is occasion in reviewing them to compare recent developments with those of the longer period. This can be done readily since the present report is prepared concurrently with the finishing of a comprehensive survey. During the past year the American Association of Museums has been taking stock of the museum resources of the country[1] and has extended this inquiry somewhat into the past; in consequence a body of statistical information is available, and quite full presentation of it is in order since at present there is no report to which one can turn for even the most fragmentary data on museum conditions and trends.

Museums are grouped here into two main classes: (1) Public museums, and (2) university, college, and school museums. Public museums—existing under a variety of controls and supports—direct their attention to the people at large. Their distribution is related to population, and their character tends to be determined by the nature of their communities. University, college, and school museums—controlled and supported by their parent institutions—exist for the instruction of particular student bodies. Their distribution is affected by a tendency among colleges and universities to avoid large population centers, and their features are shaped chiefly by teaching needs.

[1] A "Handbook of American Museums," containing a condensed but comprehensive account of each of approximately 1,400 American museums, will be published by the American Association of Museums early in 1932 and will be available from their headquarters at the Smithsonian Institution, Washington, D. C.

There are exceptions to this classification as, for example, college museums that serve the public; but they are few. More significant is the variety of forms assembled within each group. Among public museums there are some in every stage of development, from the merest beginnings in rooms to large establishments with buildings and extensive educational and technical activities. There are museums which are exhibits and nothing more, and others which are almost disembodied services using borrowed temporary displays. Historical houses, themselves exhibits, are the homes of many passive museums; other shrines of this kind hold active organizations. In parks—national parks in particular—there are outdoor museums. These are instances of the diversity among public museums; university, college, and school museums are equally many in kind. Such conditions require that information as to the number of institutions be supplemented by data measuring size, or be qualified in some other way by figures or discussion.

If, at any point in the following account, undue importance seems to be attached to very small new institutions, it should be remembered that most museums start in a modest way. A short time may remove the disparity in size between, let us say, the Greater Saint Louis Museum of Natural History which has no quarters and scarcely any income at the present time, and the Rodin Museum which has sprung into life full fledged, with a building and substantial revenues.

I. STATISTICS OF PUBLIC MUSEUMS

During the biennium 52 public museums were founded. This represents a rate of one new museum every fortnight—which is slightly higher than the average rate for the past 10 years, or one museum every 16 days. The newly established institutions, with their localities and dates of origin, are as follows:

TABLE 1.—*Public museums established in 1929 and 1930*

Alabama:	
Anniston	Regar Memorial Museum of Natural History (1930).
Montgomery	Alabama Society of Fine Arts (1930).
Arizona:	
Phoenix	The Heard Museum (1929).
Arkansas:	
Helena	Phillips County Museum (1929), Helena Public Library.
Connecticut:	
Milford	Milford Historical Society (1930).
New London	The Lyman Allyn Museum (1930).
Westbrook	Bushnell House (1929), Society of Descendants of Westbrook Settlers.

TABLE 1.—*Public museums established in 1929 and 1930*—Continued

Illinois:	
Chicago	Adler Planetarium and Astronomical Museum (1930).
Evanston	Evanston Art Center (1929), Evanston Public Library.
Indiana:	
Greensburg	Decatur County Historical Society (1929).
Marion	Octogenarian Museum, Grant County Historical Society (1929).
Kentucky:	
Covington	The Baker-Hunt Foundation Museum (1930).
Lexington	General John Hunt Morgan's Home (1930).
Louisiana:	
Alexandria	Alexandria City Museum (1930).
New Orleans	Exhibit of Natural Resources of the State of Louisiana (1930).
Maryland:	
Hagerstown	Washington County Museum of Fine Arts (1929).
Massachusetts:	
Center	Samuel Stetson House (1930), Society for the Preservation of New England Antiquities.
Dalton	Old Stone Mill (1930), Crane & Company.
Holyoke	Belle Skinner Collection of Old Musical Instruments (1930).
Ipswich	Emerson-Howard House (1930), Society for the Preservation of New England Antiquities.
Lenox	Museum, The Pleasant Valley Bird and Wild Flower Sanctuary Association of Berkshire County (1930).
Medford	Peter Tufts House (1930), Society for the Preservation of New England Antiquities.
Newbury	Tristram Coffin, jr., House (1929), Society for the Preservation of New England Antiquities.
Yarmouthport	Col. John Thacher House (1929), Society for the Preservation of New England Antiquities.
Michigan:	
Dearborn	The Edison Institute of Technology (1929). Greenfield Village (1929), The Edison Institute of Technology.
Marquette	Louis G. Kaufman Collection (1929).
Minnesota:	
Minneapolis	American Institute of Swedish Arts, Literature, and Science (1929).
Missouri:	
St. Louis	The Greater St. Louis Museum of Natural History (1930).
Montana:	
Belton	Museum (1929), Glacier National Park.
New Jersey:	
Atlantic City	Atlantic City Art Association (1929).
New Brunswick	Joyce Kilmer Memorial Shrine (1930), Joyce Kilmer Post, American Legion.
New Mexico:	
Coolidge	Wayside Museum (1929).

TABLE 1.—*Public museums established in 1929 and 1930*—Continued

New York:		
	New York City	Moneys of the World Collection (1929), The Chase National Bank.
		Museum of Modern Art (1929).
		New York Police Museum (1930).
	Plattsburg	Kent-Delord House, Kent-Delord Corporation (1930).
	White Plains	Nature Lore Workshop (1930), Westchester County Recreation Commission.
Pennsylvania:		
	Doylestown	Mercer Fonthill Museum (1930).
	Philadelphia	Rodin Museum (1929), Pennsylvania Museum of Art.
Rhode Island:		
	Newport	Wanton-Lyman-Hazard House (1930), Newport Historical Society.
	Peace Dale	Museum of Primitive Cultures (1930).
	Providence	Stephen Hopkins House (1929), Colonial Dames of America.
South Carolina:		
	Charleston	Ross Memorial Museum (1929).
	Columbia	Wilson's Home (1930), South Carolina Historical Commission.
Tennessee:		
	Memphis	Museum of Natural History and Industrial Arts (1929).
Utah:		
	Fillmore	State House Museum (1930).
Virginia:		
	Charlottesville	Ash Lawn (1930).
	Danville	Danville Art Club (1929).
	Fredericksburg	Boyhood Homestead of George Washington (1930), George Washington Foundation.
West Virginia:		
	Wheeling	Oglebay Park Museums (1930).
Wyoming:		
	Yellowstone	Trailside Museums (1929), Yellowstone National Park.

This roll seems not to give an adequate picture of what has taken place, since one misses the names of several important institutions that recently have come into prominence for the first time. Some of these have just completed notable buildings, and others have undertaken spectacular programs of one kind or another. However, progress among existing establishments will be treated in its place. Suffice it here to note a few instances of newly known museums which are in fact more than two years old, namely, the Nelson Gallery of Art and the Atkins Museum of Fine Arts at Kansas City, the Ringling Museum of Art at Sarasota, Fla., the Laboratory of Anthropology at Santa Fe, the Museum of the City of New York, the Museum of Science and Industry of Chicago, and the Franklin Institute at Philadelphia.

The 52 museums which were founded in 1929 and 1930 are enough in number to justify examining them somewhat for the character of recent developments.

FIELDS OF PUBLIC MUSEUMS

Museums are classed by their subject matter, or field, as pertaining to art, science (natural history), history, or industry (including commerce). There are also general museums devoted to more than one field.

The new museums of the biennium represent all of these classes as shown in Table 2.

TABLE 2.—*Public museums founded in the biennium 1929 and 1930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings completed [1]	Aggregate cost of buildings completed [1]
1	2	3	4	5
Art	12	$185,000	4	$733,000
Science	12	75,000	4	780,000
History	24	25,000	2	22,000
Industry	2	([2])	1	[3] 5,000,000
General	2	5,000		

[1] These figures are for the buildings of museums founded in the biennium, and not for all buildings completed during the period.
[2] This amount is small without the income of the Edison Institute of Technology, Henry Ford's industrial museum at Dearborn, Mich., for which figures are not available.
[3] Building of the Edison Institute of Technology.

Art shows the most active growth. Science has gained an equal number of new museums, albeit weaker ones on the whole. History holds the record for new establishments, which, however, are of exceedingly modest proportions. Industry has made a huge advance through one of its two new museums.

Figures for the decade, to compare with those for the closing two years, are given in Table 3.

TABLE 3.—*Public museums founded in the decade 1921–1930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings completed [1]	Aggregate cost of buildings completed [1]
1	2	3	4	5
Art	60	$845,000	13	[2] $16,860,000
Science	44	184,000	16	1,290,000
History	111	175,000	5	[3] 2,100,000
Industry	10	342,000	2	5,320,000
General	11	58,000	1	8,000

[1] These figures are for the buildings of museums founded in the decade, and not for all buildings completed during the period.
[2] This includes the Philadelphia Museum of Art (new building of the Pennsylvania Museum of Art which cost $13,850,000). This began as a separate enterprise of the city and therefore is counted here as a new museum of the decade, though it soon came under the administration of the older institution.
[3] This includes the building of the Museum of the City of New York which cost $1,500,000.

The lead of art during the decade would be less impressive without the help of the exceptional item explained in note 2, and history would have its aforementioned status if the item of note 3 were omitted. Hence the stories told by the two tables are essentially the same, and they are of especial interest because they dispel the common misapprehensions that the fields of art and science have nearly coordinate museum developments, and that history has scarcely anything to show in a museum way. There is here also a record of the advent of industrial museums, which have long been prospective in this country. A feature which does not appear from the tables is that science reckons its growth partly in terms of outdoor museums of a new type called *trailsides*. For the biennium, the Wayside Museum at Coolidge, N. Mex., the new museum in Glacier National Park, and the system of museums in the Yellowstone are the cases in point. There were 13 of such museums founded in the decade; before that only 2 were in existence.

Table 4 takes account of all museums on record in 1930 and gives a general view of present relationships between the several fields. The reader may seize upon this first opportunity to discover how many public museums there are. The number is 781—obtained by totaling the second column—but without qualifications which we are not yet prepared to make, this count is misleading. At present we are concerned with relative conditions in the several fields.

TABLE 4.—*Public museums existing in 1930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings [1]	Cost of buildings [1]
1	2	3	4	5
Art	167	$7,394,000	56	$51,969,000
Science	125	4,796,000	42	22,162,000
History	415	919,000	44	7,435,000
Industry	24	632,000	4	6,470,000
General	50	2,590,000	20	15,145,000

[1] Only buildings designed for museum purposes are considered. With these are included museum additions to buildings of other kinds—the cost, in any such case, being taken as that of the addition alone. Further information about buildings is presented in a subsequent section; the costs given here are carried from Table 17.

Art is not only the field of most rapid growth; it is also—as appears from the table—the leading field on the basis of aggregate income, total capital investment, and number of buildings. The position of science is defined at the same time as clearly secondary in these respects. History still gives a good account of itself when all things are considered—showing a very large number of museums and much more of a capital investment than might have been anticipated. Industry shows a development during all the years prior to 1921 that is no greater than what has been gained in the decade since; there are few

institutions in this field, but most of them are very strong. General museums show so conspicuously in the last table that attention is called to their small part in the two preceding ones. Evidently the trend is distinctly away from museums embracing more than one field—and this is an important indication to those who have counted upon multiplication of general museums for solution of certain financial problems.

INCOME OF PUBLIC MUSEUMS

Public museums are classed, with relation to their revenues, as principally supported by income on endowment, gifts and dues,[2] appropriations from city, State, or Nation, or allotments by a library or business firm. There are also private museums open to the public.

The new museums of the biennium represent all of these classes in the numbers shown in Table 5. An indication of the size of the same institutions is given in Table 6.

TABLE 5.—*Public museums founded in the biennium 1929 and 1930, grouped by principal source of income*

Principal source of income	Number of museums by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	4	2	3			9
Gifts, dues	3	1	11	1		16
City	2	2	1		2	7
County	[1] 1	1	1			3
State		2	3			5
Nation		2				2
Library	1		1			2
Firm			1	1		2
Private	1	2	3			6

[1] A new museum of art at Hagerstown, Md., is supported equally by city and county. It is credited here to county support in order to emphasize the less usual source of income.

TABLE 6.—*Aggregates of total incomes in 1930 of public museums founded in the biennium 1929 and 1930*

Principal source of income	Approximate aggregates of total incomes by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	$45,000	$3,000	$5,000			$53,000
Gifts, dues	117,000	500	6,000	(a)		123,500
City	11,000	3,500	5,000		$5,000	24,500
County	10,000	5,000	500			15,500
State		60,000	2,000			62,000
Nation		1,500				1,500
Library	1,000		500			1,500
Firm			5,000	$500		5,500
Private	1,000	1,500	500			3,000

[a] Figures not available.

[2] In the past it was true that principal support by dues almost certainly implied control by a society, and therefore some students recognized a class of "society museums" when grouping museums by income. This is no longer satisfactory since many museums without a society form of organization derive their chief support from gifts and dues of members.

One observes first from these tables that gifts and dues play the leading rôle. This is due to growth in the ranks of art associations and historical societies—a matter of peculiar interest in the light of the common statement that historical societies are things of the past. Endowment and city support come next—excepting State support of which we shall speak presently. Tracing the distribution of support from these sources, one notes a marked gravitation toward art.

County support deserves a word by itself because this source has been under scrutiny for some years by those who believe that it holds large possibilities of development. The figures are not reassuring.

The State and the Nation distribute their appropriations curiously among the new museums of the biennium. There is a total neglect of art—which is contrary to the disposition of every other important source of support. Science has almost a monopoly. Inquiry into individual cases shows that State support is largely directed toward State museums which deal with science because of the interest of the State in mineral, plant, and animal resources. It also shows that national support is given entirely to outdoor museums.

Tables 7 and 8 give comparable data for museums established in the decade.

TABLE 7.—*Public museums founded in the decade 1921–1930, grouped by principal source of income*

Principal source of income	Number of museums by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	13	4	6	2		25
Gifts, dues	23	11	60	6	4	104
City	16	6	5		6	33
County	1	1	9			11
State		4	10			14
Nation		11	2			13
Library	4	3	7		1	15
Firm			1	2		3
Private	3	4	11			18

TABLE 8.—*Aggregates of total incomes in 1930 of public museums founded in the decade 1921–1930*

Principal source of income	Approximate aggregates of total incomes by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	$100,000	$8,000	$72,000	$65,000		$245,000
Gifts, dues	190,000	57,000	60,000	[1] 275,000	$16,000	598,000
City	520,000	20,000	5,000		34,000	579,000
County	10,000	5,000	9,000			24,000
State		70,000	12,000			82,000
Nation		20,000	4,000			24,000
Library	5,000	2,000	4,000		8,000	19,000
Firm			5,000	2,000		7,000
Private	20,000	2,000	4,000			26,000

[1] Complete figures not available.

Here again are observable the same preeminence of gifts and dues, and the same importance of endowment and city support—with the tendency of all three to favor art. The proportion of city support is higher than in the table for the biennium, but this should not be surprising since city appropriations commonly follow several years of public service supported in other ways. Therefore there would be more chance for it to appear in 10 years than in 2.

Tables 9 and 10 give comparable information concerning all museums that were on record in 1930.

TABLE 9.—*Public museums existing in 1930, grouped by principal source of income*

Principal source of income	Number of museums by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	45	20	42	3	5	115
Gifts, dues	58	23	224	7	8	320
City	32	19	19	1	22	93
County	1	3	22		1	27
State	2	17	54	2	7	82
Nation	1	15	6	1	1	24
Library	22	13	27	1	5	68
Firm			1	9		10
Private	6	15	20		1	42

TABLE 10.—*Aggregates of total incomes in 1930 of public museums existing in 1930*

Principal source of income	Approximate aggregates of total incomes by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
Endowment	$4,118,000	$3,258,000	$434,000	$200,000	$27,000	$8,037,000
Gifts, dues	511,000	390,000	251,000	[1] 185,000	43,000	1,380,000
City	2,651,000	834,000	40,000	150,000	1,158,000	4,833,000
County	10,000	54,000	18,000		280,000	362,000
State	27,000	185,000	136,000	50,000	289,000	687,000
Nation	35,000	59,000	7,000	500	748,000	849,500
Library	15,000	6,000	14,000	500	14,000	49,500
Firm			5,000	46,000	19,000	70,000
Private	27,000	10,000	13,500		12,000	62,500

[1] Complete figures not available.

In these two tables dealing with a preponderance of old establishments, it is striking that gifts and dues—although supporting the largest number of museums—fail to hold the first place which has been noted in the financial tables for recently established institutions. The lead of endowment over city support is to be expected because of the tendency of endowment to gather around the later years of an institution's life. These three principal sources do not show quite the leaning toward art that has been observed as characteristic of the decade, but this, too, would be anticipated since science has not had the same growth as art of late.

The other features which we have been tracing do not appear clearly in the present tables and are evidently characteristic of recent years.

The observations from these six tables should be of some value to founders of new museums who are inquiring into the possibilities of different sources for the support of their undertakings. Further, they are of interest as records of steps in the evolution of museums.

CONTROL OF PUBLIC MUSEUMS

The control of museums can not be inferred in many cases from the nature of support. This appears from the fact, for example, that city appropriations are given to museums controlled by the city and also to independent establishments.

Of the biennium's new public museums 31 are controlled by non-political boards of trustees while 9 are controlled by city, county, or State authorities. Comparable figures for the decade are 154 and 33, respectively. This leaves out of consideration museums that are under libraries, business firms, and individual owners, as well as museums of the Nation most of which are located in national parks.

The typical plan of museum administration in this country has always been that of control by an independent board—either self-perpetuating or elected by the members of a society. This plan has led over all others together by only about three times in the biennium, whereas it led by nearly five times in the decade. It may be that the indicated disparity between the decade and the biennium discloses a drift toward governmental control, which is the dominant system in every other country of the world.

DISTRIBUTION OF PUBLIC MUSEUMS BY SIZE OF COMMUNITY

The question of where museums are found and where new ones are appearing is one of interest because it gives a measure of the progress being made toward the ideal of museum service for all the people. Museum facilities have been developed most extensively in large cities, and there has been some discussion as to whether they can be extended to small communities—and if not, as to where the threshold lies in the scale of population.

Table 11 throws some light on this.

Leaving museums in national parks out of consideration, we see that 40 out of the 50 new museums, or 80 per cent, are in communities with fewer than 100,000 inhabitants. One naturally asks what these new small-community museums are, and whether their appearance in such numbers was characteristic of earlier years. The second question is quickly answered by anticipating the next two tables. During the decade there were 156 out of 223 new museums, or 70 per cent, so located. Among all museums existing in 1930 there

were 467 out of 766, or 61 per cent, so located. The rate of increase is 20 museums a year in small places during the biennium against 14.5 a year for preceding years of the decade. Plainly the development, though not new, is gathering momentum.

TABLE 11.—*Public museums founded in the biennium 1929 and 1930, grouped by size of their communities*

Population of community	Museums by income groups				Total number of museums
	Less than $1,000	$1,000–$24,999	$25,000–$99,999	$100,000- or more	
1	2	3	4	5	6
(National parks)	1	1			2
Fewer than 5,000	8	2			10
5,000 to 25,000	9	3			12
25,000 to 100,000	5	11	1	1	18
100,000 to 250,000					
250,000 to 500,000		4			4
500,000 to 1,000,000	1				1
More than 1,000,000	1	2	1	1	5

The nature of the new small-community museums is best shown by examples. The two largest are the Edison Institute of Technology at Dearborn and the Lyman Allyn Museum at New London, Conn. The first of these, at least, must be credited to very special circumstances. Among the new institutions of intermediate size there are art museums at Montgomery, Ala.; Phoenix, Ariz.; Doylestown, Pa.; and Hagerstown, Md.; and science museums at Covington, Ky.; White Plains, N. Y.; Anniston, Ala.; and Wheeling, W. Va. There is also an industrial museum at Dalton, Mass. These are all active museums, having incomes sufficient to provide something substantial in the way of educational programs. In addition to these 11, there are 12 historical houses, 7 museums of historical societies or art associations, and 2 attached to libraries. Among the remaining 8 museums there are several very worthy little ones. This indicates that the ranks of new establishments in small places include active public museums with no more than the usual admixture of historical houses and passive or negligible units.

Omitting the two largest museums as not representative, there are 38 that invite some further study. They are indicated by the boldfaced type in Table 11. The different subjects are represented among them as follows: History 21, art 8, science 6, industry 1, and general 2. Of the entire 38, there are 24 controlled by boards of trustees and chiefly supported in a majority of cases by gifts and dues, with endowment as the second most frequent source of revenue. This may be taken as the characteristic set-up under these conditions.

Evidently the day of museums in small communities has arrived. There need be no concern over ultimate dearth of museum service

in this quarter. Efforts at promotion may now profitably seek to increase the effectiveness of these small institutions in order that they may render the best type of service and be able to extend their usefulness to the rural population. Development of sentiment for town and county support would abet this.

If there is any skepticism over these conclusions one may observe further in Table 12, which shows the location of new museums of the decade.

TABLE 12.—*Public museums founded in the decade 1921–1930, grouped by size of their communities*

Population of community	Museums by income groups				Total number of museums
	Less than $1,000	$1,000–$24,999	$25,000–$99,999	$100,000 or more	
1	2	3	4	5	6
(National parks)	8	5			13
Fewer than 5,000	37	22			59
5,000 to 25,000	32	13			45
25,000 to 100,000	23	26	2	1	52
100,000 to 250,000	7	*13*	*1*		21
250,000 to 500,000	*3*	*12*			15
500,000 to 1,000,000	*3*	*3*	*1*		7
More than 1,000,000	*7*	*12*	*2*	*3*	24

Table 12 shows that communities with fewer than 100,000 inhabitants have gained 156 museums in the decade while larger cities have gained only 67. Here again we disregard national parks. Most of the new museums in the smaller communities are themselves relatively small, although 3 have incomes of more than $25,000 a year. Among the others, 61 have incomes of more than $1,000, and 92 have less than $1,000 annually. There is fully as large a proportion of well-rounded and active institutions as that for the biennium.

The decade's new small museums in small communities—represented by bold-face type in Table 12—show other features like those observed for the biennium. Subjects are represented as follows: History 95, art 30, science 19, industry 2, and general 7. The proportions are about the same as before. Of the total of 153, there are 105 controlled by boards of trustees and chiefly supported in a good majority of cases by gifts and dues, with endowment the second source in order of importance. It is interesting that city and town appropriations play so small a part; city support is an important item to museums in larger cities.

The table invites another inquiry—one which was not made with reference to the biennium because so few museums would have been involved. This is to see how the pattern of new museums in places with more than 100,000 inhabitants differs from the pattern that we have seen for smaller places. The institutions now to be considered

are represented by italics in Table 12. They spread somewhat evenly over all income groups; naturally there would be many prosperous museums among them. Subjects are as follows: Art 29, history 16, science 10, industry 7, and general 5. This is a different picture from the one for small communities; art holds first place with twice the share it had before, while history comes second with hardly more than a third of its previous allotment; science is in the usual position; industry makes a much better showing than in small places. These peculiarities might be predicted for larger centers of wealth and industry, where there are so many large museums. The administrative set-up is no different; boards of trustees control 45 of the 67 museums, which is almost the same percentage as in small places. The financial picture differs in that city support assumes a large rôle—almost equaling endowment in the total sum yielded; however, endowment and city support together do not produce the total of funds derived from gifts and dues.

Finally, a word as to all museums on record in 1930 is in order. Table 13 gives the data.

TABLE 13.—*Public museums existing in 1930 grouped by size of their communities*

Population of community	Museums by income groups				Total number of museums
	Less than $1,000	$1,000–$24,999	$25,000–$99,999	$100,000 or more	
1	2	3	4	5	6
(National and State parks)	10	5			15
Fewer than 5,000	105	49			154
5,000 to 25,000	107	45	1		153
25,000 to 100,000	78	78	3	1	160
100,000 to 250,000	31	58	7	2	98
250,000 to 500,000	16	43	12	5	76
500,000 to 1,000,000	11	17	10	8	46
More than 1,000,000	23	30	11	15	79

These figures and supplementary information of the kind reported above show what one would expect, namely, a majority of museums in small places; history leading in these small places; art leading in large places; a preponderance of board control and support by gifts and dues, supplemented by endowment and—in large places—also by substantial city moneys. The one new feature here is a large rôle for endowment in cities of more than 100,000 population where the older and larger museums make a showing with their large permanent funds. The figures are: Income on endowment $5,250,000; gifts and dues, $2,500,000; and city appropriations $2,750,000 as the approximate shares in the aggregate income of nearly $14,000,000 received by 299 museums.

Of the 93 cities with more than 100,000 inhabitants 87 have one or more public museums, whereas only about 20 per cent of the 1,740

communities with from 5,000 to 100,000 inhabitants have any museum at all, and only about 1 per cent of the nearly 15,000 still smaller places have any. It is evident that growth below the 100,000 population mark, where museum-making is now going on most actively, has much ground to cover.

GEOGRAPHIC DISTRIBUTION OF PUBLIC MUSEUMS

Some parts of the country are acquiring new museums more rapidly than others. To get an idea of the geography of growth and of the distribution of existing museums is the next step, but we shall not be thus prepared to make comparison between areas except in terms of how many museums they have. Comparison in terms of full museum resources—in the absolute and in relation to population—must be deferred until other data have been marshaled.

Table 14 shows where the new museums of the biennium and of the decade are located.

TABLE 14.—*Geographic distribution of public museums founded in the biennium 1929 and 1930 and in the decade 1921–1930*

Division and State	Number of museums by income groups							
	In the biennium				In the decade			
	Less $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more	Less $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more
1	2	3	4	5	6	7	8	9
NEW ENGLAND:								
Maine					5	1		
New Hampshire						2		
Massachusetts	6	2			17	15		
Rhode Island	2	1			3	2		
Connecticut	2		1		3	1	1	
MIDDLE ATLANTIC:								
New York	1	3		1	11	17	1	1
New Jersey	1	1			3	3		
Pennsylvania		2			5	5		1
EAST NORTH CENTRAL:								
Ohio					1	2		
Indiana	2				16	7		
Illinois	1		1		4	1	1	1
Michigan	1		1	1	4	5		1
Wisconsin					1	1		
WEST NORTH CENTRAL:								
Minnesota		1				1		
Iowa						2		
Missouri	1				2	3		
Nebraska						1		
Kansas					1	2		
SOUTH ATLANTIC:								
Maryland		1				2		
District of Columbia					1	2		
Virginia	2	1			6	4		
West Virginia		1				1		
North Carolina					4	1		
South Carolina	1	1			1	1		
Georgia						1		
Florida					2	1		

TABLE 14.—*Geographic distribution of public museums founded in the biennium 1929 and 1930 and in the decade 1921–1930*—Continued

Division and State	Number of museums by income groups							
	In the biennium				In the decade			
	Less $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more	Less $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more
1	2	3	4	5	6	7	8	9
EAST SOUTH CENTRAL:								
Kentucky	1	1			1	1		
Tennessee		1			1	2		
Alabama		2				3		
Mississippi					1	1		
WEST SOUTH CENTRAL:								
Arkansas	1				1			
Louisiana	1	1			1	2		
Oklahoma					1			
Texas					4			
MOUNTAIN:								
Montana	1				2			
Wyoming		1			1	2		
Colorado					1			
New Mexico	1				2	1		
Arizona		1			2	4		
Utah	1				1			
PACIFIC:								
Washington					3			
California					8	6	3	

New York leads in numerical growth. Michigan has prominence almost entirely through the activities of Henry Ford. Illinois makes a fair showing, and so does Pennsylvania, but neither State has distinguished itself during the last two years. Connecticut deserves a word—and also California, for its record in the decade.

Massachusetts and Indiana are conspicuous for their numbers of small museums founded during the decade. Indiana has a State law authorizing counties to support historical societies by appropriating toward salaries and by furnishing quarters or maintenance funds. This has been effective in promoting the establishment of small museums as well as in furthering the affairs of existing ones. In Massachusetts quite a different influence is at work. Interest in history runs high and is expressed partly by the preservation of historical houses for opening to the public as small historical museums. One important agency so engaged is the Society for the Preservation of New England Antiquities, with headquarters in Boston, which is responsible for a score of little branches of this sort.

Among the States which have not made any progress at all during the last two years there are several which one would expect to find on the active list. California, Wisconsin, Ohio, and the District of Columbia have strong museum developments and it is hard to see why they have not advanced recently. However, each of them made

progress in the decade. States omitted from the list because they have nothing to show are: Vermont (New England); North Dakota and South Dakota (West North Central); Delaware (South Atlantic); Idaho and Nevada (Mountain); and Oregon (Pacific).

TABLE 15.—*Geographic distribution of museums existing in 1930*

Division and State	Number of museums by income groups			
	Less than $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more
1	2	3	4	5
NEW ENGLAND:				
Maine	17	5		
New Hampshire	3	3	1	
Vermont	3	3		
Massachusetts	75	58	2	2
Rhode Island	9	5	1	
Connecticut	22	11	1	1
MIDDLE ATLANTIC:				
New York	39	55	7	8
New Jersey	13	8	1	1
Pennsylvania	28	19	2	6
EAST NORTH CENTRAL:				
Ohio	6	9	3	4
Indiana	34	12	1	
Illinois	13	7	2	3
Michigan	8	7	2	2
Wisconsin	7	5	1	1
WEST NORTH CENTRAL:				
Minnesota		5	1	
Iowa	6	4		
Missouri	6	7	2	1
North Dakota		1		
South Dakota		1		
Nebraska	2	3		
Kansas	2	3		
SOUTH ATLANTIC:				
Delaware	1	2		
Maryland	2	4	1	
District of Columbia	2	5	3	2
Virginia	9	14		
West Virginia		1		
North Carolina	6	3		
South Carolina	4	3		
Georgia	2	3		
Florida	4	3		
EAST SOUTH CENTRAL:				
Kentucky	3	3		
Tennessee	3	5		
Alabama	1	5		
Mississippi	1	2		
WEST SOUTH CENTRAL:				
Arkansas	3			
Louisiana	2	3	1	
Oklahoma	1	1		
Texas	7	6		
MOUNTAIN:				
Montana	3			
Idaho		1		
Wyoming	1	2		
Colorado	2	1	2	
New Mexico	4	2	1	
Arizona	3	4		
Utah	3	1		
PACIFIC:				
Washington	3	4		
Oregon	1	2		
California	17	14	8	1

The Middle Atlantic division[3] is the region of greatest growth, and it is the only division in which every component State has made some gain during the last two years. The East North Central divi-

[3] Regional divisions are those of the United States Census.

sion is a close second, and the New England and the South Atlantic divisions follow in turn. The Pacific division is the only one for which no new museum was recorded in the biennium, but it ranked quite high in the decade.

Table 15 shows the distribution of museums existing in 1930. All States are represented except Nevada. The relation between developments in the different States is the subject of Part IV.

BUILDING OF PUBLIC MUSEUMS

During the past two years 48 public museum buildings or additions have been erected. This represents an average rate of one new structure every 15 days—double the rate for the decade, which is one every 35 days. Table 16 lists the new buildings of the biennium.

TABLE 16.—*Public museum buildings and additions completed in the biennium 1929 and 1930*

Alabama:	
Anniston	Regar Museum of Natural History (1930) wing of library.
Arizona:	
Phoenix	The Heard Museum (1929) cost $42,000.
Arkansas:	
Helena	Phillips County Museum (1929) cost $12,000.
California:	
Laguna Beach	Laguna Beach Art Gallery (1929) cost $20,000.
Los Angeles	Los Angeles Museum (1929) addition, cost $1,500,000.
San Diego	San Diego Historical Society (1929) cost $90,000.
San Francisco	California Academy of Sciences (1930) addition, cost $150,000.
	M. H. de Young Memorial Museum (1930) addition, cost $265,000.
Connecticut:	
New Haven	New Haven Colony Historical Society (1930) cost $350,000.
Florida:	
Sarasota	John and Mabel Ringling Museum of Art (1930).
Illinois:	
Chicago	Adler Planetarium and Astronomical Museum (1930) cost $600,000.
	Art Institute of Chicago (1929) addition, cost $54,000.
Indiana:	
Marion	Grant County Historical Society (1929) cost $10,000.
Iowa:	
Davenport	Davenport Public Museum (1930) addition, cost $12,000.
Kentucky:	
Covington	Baker-Hunt Foundation Museum (1930) cost $30,000.
Maine:	
Thomaston	Knox Museum (1929) cost $5,000.
Maryland:	
Baltimore	Baltimore Museum of Art (1929) cost $1,000,000.

TABLE 16.—*Public museum buildings and additions completed in the biennium 1929 and 1930*—Continued

Massachusetts:	
Concord	Concord Antiquarian Society (1930) cost $65,000.
Lynn	Lynn County Historical Society (1929) cost $25,000.
Worcester	John Woodman Higgins Armory (1930) cost $320,000.
Michigan:	
Dearborn	Edison Institute of Technology (1929) cost $5,000,000.
Grand Rapids	Grand Rapids Art Gallery (1929) addition, cost $39,000.
Missouri:	
Kansas City	Kansas City Art Institute (1930) addition, cost $95,000.
New Hampshire:	
Manchester	Currier Gallery of Art (1929) cost $365,000.
New Jersey:	
Montclair	Montclair Art Museum (1930) addition, cost $75,000.
Trenton	New Jersey State Museum (1929) part of State building, cost $600,000.
New Mexico:	
Coolidge	Wayside Museum (1929).
Santa Fe	Laboratory of Anthropology (1930) cost $200,000.
New York:	
Buffalo	Buffalo Historical Society (1929) addition, cost $300,000.
	Buffalo Museum of Science (1929) cost $1,110,000.
Huntington	Vanderbilt Marine Museum (1930) addition.
New York City	Metropolitan Museum of Art (1929) two additions, (1930) addition.
	Museum of the City of New York (1930) cost $1,700,000.
North Carolina:	
Asheville	Asheville Art Association (1930) cost $70,000.
Ohio:	
Cincinnati	Cincinnati Art Museum (1930) addition, cost $527,000.
Columbus	Ohio State Museum (1929) addition, cost $139,000.
Dayton	Dayton Art Institute (1930) cost $1,294,000.
Oklahoma:	
Oklahoma City	Oklahoma Historical Society (1930) part of State building, cost $125,000.
Pennsylvania:	
Philadelphia	John Morton Memorial Museum (1929) cost $300,000.
	Rodin Museum (1929) cost $240,000.
Reading	Historical Society of Berks County (1929) cost $93,000.
Scranton	Everhart Museum of Natural History, Science and Art (1929) addition, cost $280,000.
Texas:	
Houston	Houston Museum of Natural History (1930) cost $10,000.
Wisconsin:	
New London	New London Public Museum (1930).

TABLE 16.—*Public museum buildings and additions completed in the biennium 1929 and 1930*—Continued

Wyoming:	
Yellowstone National Park	Yellowstone Museums [1] (1929) cost $50,000, (1930) cost $50,000.

[1] A series of trailside museums is being created in the Yellowstone and 1 unit was completed in each of the indicated years. Costs, as given, represent a division of the approximate total amount expended for construction during the 2 years.

Table 17 shows capital outlay by years for the decade, in relation to the whole prior investment in museum buildings. Attention is called to the grand total of $103,181,000. This is America's investment in bona fide public museum buildings. It does not include prices paid for makeshift buildings or costs of remodeled ones. Any such converted buildings as have been enlarged by addition of a wing actually designed for museum purposes, are represented in the table by the cost of the addition.

TABLE 17.—*Investment, by years, in public museum buildings in use at the end of 1930* [1]

Year of opening	Cost of buildings by field					
	Art	Science	History	Industry	General	Total
1	2	3	4	5	6	7
1930	$2,600,000	$1,112,000	$2,240,000	$320,000	$335,000	$6,607,000
1929	2,439,000	1,170,000	830,000	5,000,000	2,519,000	11,958,000
1928	13,895,000	120,000	22,000		30,000	14,067,000
1927	5,710,000	35,000	200,000		8,000	5,953,000
1926	2,460,000	72,000	182,000		2,188,000	4,902,000
1925	750,000					750,000
1924	2,688,000		15,000		591,000	3,294,000
1923	1,125,000	692,000			400,000	2,217,000
1922		50,000				50,000
1921	175,000	8,530,000			165,000	8,870,000
Total for decade	31,842,000	11,781,000	3,489,000	5,320,000	6,236,000	58,668,000
Prior to 1921	20,127,000	9,522,000	3,946,000	1,150,000	8,909,000	43,654,000
Grand total	51,969,000	21,303,000	7,435,000	6,470,000	15,145,000	102,322,000

[1] This and the next table include some estimates of building costs, and also some approximations of museum shares in buildings designed only in part for museum purposes. A typical example is that of a State museum sharing a building equally with a State library and having half the total cost charged up in the table. There are only a few cases of this except for the buildings of historical societies which offered some difficulty and had to be treated more or less arbitrarily. Those costing more than $50,000 and devoted to various society activities are represented by cost figures showing museum share roughly on the basis of proportionate floor area; those costing less than $50,000 proved to be devoted principally or wholly to museum purposes, and were entered at full cost. However, all such special cases together contribute only a very small element. The table is essentially a record of the full cost of museum buildings.

This record of capital outlay covers 166 buildings, devoted to subjects as follows: Art 56, science 42, history 44, industry 4, and general 20. Table 18 shows how the cost is distributed throughout the country.

TABLE 18.—*Investment, by States, in public museum buildings in use at the end of 1930* [1]

State	Cost of buildings by field						Number of buildings
	Art	Science	History	Industry	General	Total	
1	2	3	4	5	6	7	8
Alabama		$50,000				$50,000	1
Arizona	$42,000	10,000			$8,000	60,000	3
Arkansas			$12,000			12,000	1
California	1,665,000	602,000	90,000	$200,000	3,430,000	5,987,000	13
Colorado	20,000	272,000	460,000			752,000	4
Connecticut	250,000		387,000			637,000	4
District of Columbia	2,775,000	200,000			3,815,000	6,790,000	4
Florida	500,000					500,000	1
Illinois	3,199,000	7,710,000	180,000		400,000	11,489,000	8
Indiana	182,000		10,000			192,000	2
Iowa		12,000				12,000	1
Kentucky		30,000				30,000	1
Louisiana	150,000					150,000	1
Maine		83,000	37,000			120,000	6
Maryland	1,100,000					1,100,000	2
Massachusetts	3,037,000	255,000	508,000	320,000	250,000	4,370,000	21
Michigan	4,147,000			5,000,000		9,147,000	4
Minnesota	1,324,000		125,000			1,449,000	3
Missouri	1,095,000		468,000			1,563,000	3
New Hampshire	365,000	5,000	20,000			390,000	3
New Jersey	145,000				1,350,000	1,495,000	3
New Mexico	65,000	205,000				270,000	3
New York	7,415,000	8,848,000	3,645,000		3,336,000	23,244,000	27
North Carolina	70,000					70,000	1
Ohio	4,982,000	35,000	175,000		527,000	5,719,000	9
Oklahoma			125,000			125,000	1
Oregon	30,000					30,000	1
Pennsylvania	17,566,000	2,693,000	928,000	950,000	806,000	22,943,000	17
Rhode Island	1,100,000	83,000	10,000			1,193,000	3
South Carolina	80,000					80,000	1
Tennessee	114,000					114,000	1
Texas	450,000	10,000			150,000	610,000	3
Vermont		100,000				100,000	1
Washington			45,000		83,000	128,000	3
Wisconsin	101,000		210,000		990,000	1,301,000	5
Wyoming		100,000				100,000	1
Total	51,969,000	21,303,000	7,435,000	6,470,000	15,145,000	102,322,000	166

[1] See footnote of Table 17.

The States omitted from this table, because they have no true museum buildings, are: Delaware, Georgia, Idaho, Kansas, Mississippi, Montana, Nebraska, Nevada, North Dakota, South Dakota, Utah, Virginia, and West Virginia.

Some museums are housed, more or less temporarily, in former residences or buildings of other kinds that may be remodeled for museum use but which can not be considered as museum buildings. Others occupy historical houses some of which are restored or reconstructed. A great many museums, with no buildings of their own, have space in public buildings or other places where presumably they are permanently located. Table 19 gives the number of museums accommodated in these several ways.

TABLE 19.—*Quarters occupied by museums without museum buildings in 1930*

Kind of quarters	Number of museums by field					Total number
	Art	Science	History	Industry	General	
1	2	3	4	5	6	7
Converted building	31	26	25	1	19	102
Historical house	3		208	2		213
Space in—						
Library	36	14	66	1	7	124
Business building	8	9	20	14		51
State capitol	1	5	11			17
County court		2	23			25
City hall		2	2			4
Club	16	2	3		1	22
Home	3	9				12
Other [1]	14	16	23	1	1	55

[1] Includes space in theaters, armories, war memorials, laboratories, park administration buildings, etc.

II. STATISTICS OF UNIVERSITY, COLLEGE, AND SCHOOL MUSEUMS

The inclusion of school museums with those of colleges and universities deserves a word. There are only 10 school museums of sufficient size to be dealt with here and they resemble college museums in so many ways that it has not seemed worth while for present purposes to treat them separately.

Institutions of the class now to be examined differ fundamentally from public museums. They are teaching establishments and only the exceptional one reaches beyond the precincts of its parent institution. Few of them have independent incomes, and to trace their revenues through college appropriations to original sources would carry one off the subject of museum finance. Further, the distribution of these museums is determined by influences affecting colleges. Evidently, therefore, our discussion of teaching museums need not travel through all the channels that have been followed in the foregoing section.

Although many college teaching collections and 1-room museums were begun during 1929 and 1930, only 6 museums with more than $1,000 of annual operating income were established on campuses or in schools. This is about the same annual rate of increase as recorded on the average for the past 10 years, during which 29 new museums of the indicated magnitude made their appearance. The many hundreds of teaching collections and small college museums with less than $1,000 of annual income are left out of the following discussion because they can not be treated statistically, as can small public museums. Most of them have no finances of their own and any services given to them by employees of their parent institutions are difficult if not impossible to measure. It is hard even to register these museums with any completeness.

The above-mentioned six new museums of the biennium, with their dates of origin, are listed in Table 20.

TABLE 20.—*University, college, and school museums established in the biennium 1929 and 1930*

Alabama:	
Montgomery	Museum (1930), Woman's College of Alabama.
District of Columbia:	
Washington	Howard Gallery (1930), Howard University.
Massachusetts:	
Andover	Addison Gallery of American Art (1930), Phillips Academy.
Michigan:	
Bloomfield Hills	Art Museum (1929), The Cranbrook Foundation.
	The Cranbrook Institute of Science (1930), The Cranbrook Foundation.
Virginia:	
Richmond	A. A. Anderson Gallery of Art (1930), School of Social Work and Public Health, College of William and Mary, Richmond division.

FIELDS OF CAMPUS AND SCHOOL MUSEUMS

Teaching museums collectively differ from public museums in the emphasis which they place upon the several fields of subject matter. Tables 21, 22, and 23 bring this out. The first of these tables, which is for the biennium, presents very meager data, but it is included to complete this series of tables in relation to Tables 2, 3, and 4 concerning public museums.

Table 23 affords the first occasion to inquire into how many campus and school museums there are. It shows 112 units of this class that may be called large, but it gives no clue to the hundreds of smaller ones.

TABLE 21.—*Larger* [1] *university, college, and school museums founded in the biennium 1929 and 1930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings completed [2]	Aggregate cost of buildings completed [2]
1	2	3	4	5
Art	4	$40,000	1	[3] $10,000
Science	1	12,000	1	65,000
History				
Industry				
General	1	1,000		

[1] Includes only museums with income of more than $1,000 a year. For the number of smaller college museums and teaching collections see Table 28.

[2] These figures are for the buildings of museums founded in the biennium, and not for all buildings completed during the period.

[3] Building of Phillips Academy costing $450,000 was nearly completed in 1930.

TABLE 22.—*Larger* [1] *university, college, and school museums founded in the decade 1921–1930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings completed [2]	Aggregate cost of buildings completed [2]
1	2	3	4	5
Art	11	$65,000	5	$420,000
Science	10	55,000	1	65,000
History	3	5,000		
Industry	3	5,000		
General	2	2,000		

[1] See footnote 1 of Table 21.
[2] These figures are for the buildings of museums founded in the decade, and not for all buildings completed during the period.

TABLE 23.—*Larger* [1] *university, college, and school museums existing in 930, grouped by field*

Field of museum	Number of museums	Approximate aggregate of 1930 incomes	Number of buildings completed	Aggregate cost of buildings completed
1	2	3	4	5
Art	39	$489,000	19	$6,927,000
Science	59	530,000	14	3,111,000
History	4	4,000		
Industry	3	5,000		
General	7	48,000	1	80,000

[1] See footnote 1 of Table 21.

One striking feature of the table for 1930, in the light of all that has gone before, is the prominence of science museums. This is partly a heritage from the past and partly a response to needs. In the last century the collecting activities of colleges, responding to interest in the forms and variety of natural objects and living things, created many natural history museums; some of these have developed into important modern museums of science. Apart from this influence there is a strong stimulus in the tendency of collections required for classroom use to outgrow modest proportions. However, if the record for recent years is a criterion, art museums will shortly have the same lead on the campus that public museums of art have already gained elsewhere.

The number of history museums is small, showing that teachers of history make little or no use of visual material.

BUILDINGS OF CAMPUS AND SCHOOL MUSEUMS

During the past two years five buildings or new wings were erected for museums of the kind under discussion. They are listed in Table 24.

TABLE 24.—*University, college, and school museum buildings and additions completed in the biennium 1929 and 1930*

Michigan:
- Bloomfield Hills—— Cranbrook Institute of Science (1930) cost $65,000.

New York:
- Rochester—— Museum of Natural History, University of Rochester. (1930) part of Chester Dewey Building, cost $150,000 (entire building cost $450,000).

Oregon:
- Eugene—— Oregon Museum of Fine Arts, University of Oregon (1930) cost $200,000.

Pennsylvania:
- Philadelphia—— The University Museum, University of Pennsylvania (1929) addition, cost $631,000.

Virginia:
- Richmond—— A. A. Anderson Gallery of Art, School of Social Work and Public Health, College of William and Mary (1930) cost $10,000.

Table 25 shows capital outlay, by years for the decade, in relation to the whole prior investment of universities, colleges, and schools in museum buildings. The grand total of $10,118,000 is comparable to the total of $102,322,000 for public museum buildings (Table 17). The two amounts together form the country's complete investment in museum buildings —$112,440,000.

TABLE 25.—*Investment, by years, in university, college, and school museum buildings in use at the end of 1930*

Year of opening	Cost of buildings by field			
	Art	Science	General	Total
1	2	3	4	5
1930	$210,000	$215,000		$425,000
1929	631,000			631,000
1928	1,030,000	900,000		1,930,000
1927	1,380,000	350,000		1,730,000
1926	250,000	750,000		1,000,000
1925	60,000			60,000
1924				
1923				
1922				
1921	247,000			247,000
Total for decade	3,808,000	2,215,000		6,023,000
Prior to 1921	3,119,000	896,000	$80,000	4,095,000
Grand total	6,927,000	3,111,000	80,000	10,118,000

This record of capital outlay covers 34 buildings, devoted to subjects as follows: Art 19, science 14, general 1. No history or industry museum of a university, college, or school has a true museum building. Table 26 shows how the cost is distributed among the States.

TABLE 26.—*Investment, by States, in university, college, and school museum buildings in use at the end of 1930*

State	Cost of buildings by field				Number of buildings
	Art	Science	General	Total	
1	2	3	4	5	6
California	$653,000			$653,000	2
Connecticut	1,500,000	$750,000		2,250,000	3
Illinois		110,000		110,000	1
Kansas	90,000	75,000		165,000	3
Kentucky	50,000			50,000	1
Maine	380,000			380,000	1
Massachusetts	1,684,000	655,000	$80,000	2,419,000	10
Michigan		990,000		990,000	3
Nebraska		350,000		350,000	1
New York	450,000	170,000		620,000	3
Ohio	203,000			203,000	1
Oregon	200,000			200,000	1
Pennsylvania	1,607,000			1,607,000	1
Virginia	10,000			10,000	1
Washington	100,000			100,000	1
Wisconsin		11,000		11,000	1
Total	6,927,000	3,111,000	80,000	10,118,000	34

III. THE NUMBER OF MUSEUMS

It would be misleading to say that there are 1,400 museums in the United States, although there are actually about that many museum units of one kind or another. The number of museums is best stated in somewhat discursive fashion. We have recorded the count of all public museums (Table 4); we have also given the count of university, college, and school museums that have income of more than $1,000 a year (Table 23). These figures, supplemented by others for university, college, and school museums that have less than $1,000 of income, are given in Tables 27 and 28. The museum units in these tables are arranged in groups, by income, for the purpose now before us. Some further facts gathered from Tables 4, 19, and 23 are brought together in Table 29.

TABLE 27.—*Public museums existing in 1930, grouped by size of income*

Field of museum	Number by income groups			
	Less than $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more
1	2	3	4	5
Art	51	84	18	14
Science	66	41	11	7
History	249	159	7	
Industry	7	12	1	4
General	8	29	7	6
Total	381	325	44	31

TABLE 28.—*University, college, and school museums existing in 1930, grouped by size of income*

Field of museum	Number by income groups			
	Less than $1,000	$1,000 to $24,999	$25,000 to $99,999	$100,000 or more
1	2	3	4	5
Art	55	34	3	2
Science	350	52	7	
History	50	4		
Industry	10	3		
General	50	6	1	
Total	515	99	11	2

TABLE 29.—*Quarters occupied by museums in 1930*

Type of museums	Number of museums occupying—			
	Museum buildings	Converted buildings	Historical houses	Rooms or spaces
1	2	3	4	5
Public museums	166	102	213	310
University, college, and school museums	34	16	2	575

From these tables it will be seen that there are 33 museums with annual income of more than $100,000; or 88 with more than $25,000. All-inclusive there are about 500 museums with income of more than $1,000 a year, besides 400 smaller public museums, and 500 teaching museums in colleges.

A convenient statement, also in round numbers, may be made from data on buildings—assuming that any institution with a museum building is likely to be of size, and that the quarters of other museums indicate approximately their relative magnitude. By these criteria

there are about 200 large museums, 100 others of intermediate size, 200 small public museums in historical houses, and 300 in lodgings, besides 600 teaching museums in colleges. This grouping distinguishes sufficiently between public and college museums; most of the college museums which have museum buildings or converted buildings are of public usefulness and can fairly be classed with public museums of the same order; the remaining groups make a segregation. This estimate is as good as a labored count. No figures can be entirely faithful—nor can they long be even correct, for museums are multiplying rapidly.

IV. COMPARISON OF STATE AND REGIONAL DEVELOPMENT

It would be of interest and value to know the relative standing of the States and of geographic divisions with respect to their museum development. There is no accepted basis upon which to judge this, but among the data presented in Parts I and II of this report are several possible criteria—all of which have been drawn upon in preparing the two tables which follow.

The numerical findings of the study are expressed in two ways: As coefficients[4] showing how much more one area has than another, and as ratios of coefficient to population showing how much more nearly one area lives up to its capacity than does another. In Table 30 the States are arranged in descending order of ratios. The sequence may not be exactly correct among States having ratios of about the same value, but this is not serious as fine distinctions are carefully avoided.

The first 9 States on the list of Table 30 form a class with distinct order of performance. Recalling observations in an earlier section as to museum growth in the different States (Table 14), we see that 5 of our 9 high-score States—New York, Michigan, Illinois, Pennsylvania, and Massachusetts—are also progressing rapidly at the present time. We also discovered Indiana to be growing fast although here it appears as twenty-sixth in degree of development. California and Ohio were found to be momentarily at a standstill.

Passing now to the other end of our table, we discover that Nevada is lowest in museum development. Of the States immediately above it on the list 6 are nearly as low and at least 7 more are only a little higher. It is startling to see that ratios near the end of the list are less than 1 per cent of the best.

[4] Coefficients were obtained for States by combining several categories of data: The number of museums, the aggregate of operating incomes, the aggregate cost of museum buildings, and ratings to represent converted buildings and historical houses. These elements were treated in several different ways—the results being compared among themselves as a safeguard against serious error.

TABLE 30.—*Museum development at the end of 1930, compared by States*

State	Coefficient [1] of museum development	Ratio [1] of coefficient to population
1	2	3
District of Columbia	23.0	(2)
1. New York	100.0	100.0
2. Pennsylvania	79.0	89.0
3. Connecticut	10.0	81.0
4. Michigan	27.0	77.0
5. Massachusetts	25.0	73.0
6. Rhode Island	4.0	68.0
7. Illinois	53.0	58.0
8. California	22.0	49.0
9. Ohio	25.0	47.0
10. New Hampshire	1.0	41.0
11. New Mexico	1.0	40.0
12. Colorado	3.0	33.0
13. Missouri	7.0	26.0
14. Wisconsin	6.0	26.0
15. Maryland	3.0	25.0
16. New Jersey	7.0	21.0
17. Minnesota	3.0	18.0
18. Wyoming	0.5	17.0
19. Vermont	0.5	14.0
20. Maine	1.0	12.0
21. Florida	1.0	11.0
22. Arizona	0.5	9.0
23. Nebraska	0.5	8.0
24. Oregon	0.5	8.0
25. Delaware	0.1	7.0
26. Indiana	2.0	7.0
27. Washington	0.5	7.0
28. Louisiana	1.0	6.0
29. Virginia	1.0	4.0
30. Texas	1.5	4.0
31. South Carolina	0.5	3.0
32. Kansas	0.5	3.0
33. Tennessee	0.5	2.0
34. Kentucky	0.5	2.0
35. Oklahoma	0.5	1.5
36. Alabama	0.5	1.5
37. North Carolina	0.5	1.5
38. Iowa	0.2	1.0
39. Georgia	0.2	1.0
40. Utah	0.1	1.0
41. Montana	0.1–	1.0
42. Idaho	0.1–	0.5
43. Mississippi	0.1	0.5
44. West Virginia	0.1	0.5
45. South Dakota	0.1–	0.5
46. North Dakota	0.1–	0.5
47. Arkansas	0.1–	0.5
48. Nevada	0	0

[1] Expressed as percentage of the best to facilitate comparison.
[2] The District of Columbia is not treated here as a State; it is really comparable to a city. Its ratio as a State would be six times as great as that of New York.

Surveying the middle portion of our table, one notes some features of interest. New Hampshire is in tenth place, although its museum development is no greater than that of Virginia in twenty-ninth place. This is a reminder of the smallness of its population—only 465,000 against 687,000 for Rhode Island and 1,607,000 for Con-

necticut. The discovery of Wisconsin several places below New Mexico brings a further realization of how deceptive absolute values are.

Table 31 gives coefficients and ratios for the divisions of the country. Reference to Table 15 will show the States included in each division.

TABLE 31.—*Museum development at the end of 1930, compared by geographic divisions*

Geographic division	Coefficient [1] of museum development	Ratio [1] of coefficient to population
1	2	3
1. Middle Atlantic	100	100
2. New England	23	75
3. East North Central	65	68
4. Pacific	13	41
5. South Atlantic	16	26
6. Mountain	3	19
7. West North Central	7	13
8. West South Central	2	3
9. East South Central	1	2

[1] Expressed as percentage of the best.

The three divisions at the head of the list show performance of a distinct order. They embrace States in the area from Maine southward to New York, Pennsylvania, and New Jersey, and westward through Ohio, Indiana, and Illinois—including Wisconsin and Michigan on the north. The Pacific coast region shows the next order of achievement. The rest of the country makes up a great expanse with relatively little museum development. The area from Texas to Alabama and Kentucky is clearly the least developed of all, but as we have seen it does not include all of the low-score States. The South Atlantic division, extending from Maryland to Florida, is peculiar because it includes the National Capital. Were it not for the District of Columbia, with the museums of the Nation, this division would occupy a much lower position in the table, as it would have a percentage coefficient of 4 and ratio of 6.

Recalling observations on rate of growth in the different divisions (Table 14), we see that the three divisions of fastest growth are also those of greatest strength. However, the South Atlantic division is now gaining almost as much ground as New England while the Pacific division—fourth in order of present standing—is the only one which stood still during 1929 and 1930.

V. TRENDS IN MUSEUM WORK

Many comments upon trends are made in the foregoing text, but discussion is necessarily limited because it relates only to statistics. The following notes add impressions on a few of the subjects which have come up before, and they also discuss trends in museum methods.

OUTDOOR MUSEUMS

The merest suggestion of a new development is given in two of the tables of Part I, which show that museums of science have appeared recently in national parks. However, there is no hint of the promise which this holds out to museums of science in general, and there is no indication of its relation to museums of history.

The story of the movement ushered in by museums in national parks has been told elsewhere.[5] The idea underlying it is that museums attempt too often to tell indoors, with the aid of objects that are fragments or imitations, stories that should be told outdoors where nature has provided genuine illustrative exhibits. Trails through woods and fields thus come to be regarded as paths of learning, and shrines built along the trails—trailside museums, each given over to a restricted subject—are found to be more useful for some kinds of instruction than "aisleside cases" in a museum building. It was inevitable that this doctrine should take root first in national parks—among mountains, river valleys, glaciers, forests, and an abundance of living things. The first demonstration was made a few years ago in the Yosemite where a committee of the American Association of Museums built a central museum and began a system of trailsides now taking in Glacier Point, Mariposa Grove, and Tuolumne Meadow. The most recent demonstration is an extensive series of trailsides created in the Yellowstone by the same committee under the continued leadership of Hermon Carey Bumpus.

Coming when decentralization of museums is under much discussion, trailsides in national parks are just in time to catch the imagination. Museums in cities have been moved to search local parks for natural features that can be explained on the spot. They have viewed State parks with a new interest. In consequence trailsides have already appeared in both of these settings.

The influence has spread into the field of history also, and it can be seen at work in the new Colonial National Monument, the George Washington Birthplace National Monument, and other historical areas administered by the National Park Service. At headquarters of the service a newly appointed park historian is developing history education, just as the park naturalist has already developed nature education in the parks. Historical houses may thus come to be foci of educational activity along the trails of history.

Museums of history in cities, some of which operate historical houses, are also studying the possibilities of this new decentralized museum instruction. Attention has also been drawn to the idea through the interest aroused by extensive reconstruction projects like the one at Williamsburg, Va., and Greenfield Village at Dearborn, Mich.

[5] Coleman, Laurence Vail. Contributions of Museums to Outdoor Recreation. Washington, D. C., 1928. Copies of this report to the National Conference on Outdoor Recreation are obtainable from the American Association of Museums, Washington, D. C.

It is easy to be oversanguine about such indications, but it is well within the range of probability that innumerable small museums of science and history will come into being under the stimulus of outdoor education.

BRANCH MUSEUMS

For 20 years or more branch museums have been discussed and, in a limited way, they have already become a reality. There are trailsides and historical houses, and also there are several examples of specialized branch museums, separate children's departments, as well as extension exhibits in libraries and other public buildings, and museum rooms in schools. However, none of these is a branch in the full sense of the word as applied, for example, to a branch library.

Museums—especially those in large cities—need branches located in different sections for the purpose of passing on to neighborhood groups those advantages and services which a centralized museum offers to a scattered and necessarily limited clientele. Recent years have brought this objective clearly into view, and prepared the way for the first functional branch to be established at Philadelphia in 1931. A report of this in some future survey will doubtless have other parallel developments to chronicle.

MUSEUMS IN SMALL COMMUNITIES

It will bear repeating, if only to emphasize an important finding of Part I, that an overwhelming majority of the new museums are being established in places with fewer than 100,000 inhabitants. The point of greatest activity in museum founding moves steadily down the scale of population. Large cities are now relatively well equipped.

Comparison of new museums in places having fewer than 100,000 inhabitants with museums in larger cities shows the form of organization to be typically the same in both environments. The most striking difference is the relative meagerness of support by the local government in small places. Also, in small places, history is relatively better represented.

Examination of cases individually makes it clear that the proportion of active and well-rounded institutions in populations under 100,000 is quite as large as in populations over that size, and that the effectiveness of active little museums in little places is fully as great in relation to their responsibilities as that of active big museums in the big cities. Statistics do not deceive in showing that the day of small museums in small communities has come.

PROGRESS IN EXHIBITION

In 1929 the Buffalo Museum of Science finished its new building in Humboldt Park and opened it with exhibits giving embodiment fully to the idea—familiar but not much put into practice—that a museum should exhibit subjects, not objects. In rooms surrounding a central hall, chapters of natural history are expounded in the following succession: Physics, astronomy, geology, biology, botany, invertebrate zoology, vertebrate zoology, evolution, heredity, geography, and anthropology. It is the aim of exhibits to explain the principal concepts of each science. Both the plan and its execution are very different from the traditional mode of exhibition which might call for a room label reading "Plants" but would never justify one reading "Botany: the Science of Plants."

A few months earlier, the Pennsylvania Museum of Art had opened the first section of its new building on the Parkway, Philadelphia. Here is the best realization of the idea that art exhibits should be divided throughout into two parts—one for the public, with exhibits giving a survey of the arts, and the other for the student, consisting of a systematic file of art objects for reference. In the public galleries there are pictures, sculpture, furniture, and other objects of the same time and place shown together; authentic period rooms supplement each exhibit. In the reference rooms—not yet open—there will be extensive case accommodations for objects arranged after a classification by material and process, and installed compactly and in readiness to be removed for close inspection. The plan is not entirely new, but the full embodiment of it is unique, and the example, like that at Buffalo, will surely be effective in shaping other museums.

Several large industrial museums—pioneers in this country following European precedents—are due to open their doors within the next few years at Dearborn, Chicago, and Philadelphia in turn. It was an omen, therefore, that the first of such institutions, the New York Museum of Science and Industry, opened in temporary quarters during 1930.

MUSEUM INSTRUCTION

The number of museums doing good educational work a decade ago was not more than a few dozen; now it is in the hundreds. The past two years have witnessed more than their share of this growth.

During the biennium there have been notable efforts to determine upon best methods for work with school classes visiting museums—an activity that is already carried on with system and careful techniques. The most important researches have been those conducted in several cities under the direction of Edward S. Robinson, Professor of Psychology at Yale. Several museums have experimented independently

and one has published the results. This sort of thing represents a further gain over the old rule-of-thumb attitude toward museum instruction.

PUBLIC RELATIONS

There has been a marked increase of energy and skill in developing relations between museums and the public during very recent years. Part of this has been stimulated by increased museum activity, and part is in response to the enlarging public interest in archeological work, scientific progress, and geographical discovery. The daily press mirrors the change. During a typical winter month in 1930 the New York Times contained more than 50 stories on museums, filling two dozen columns or about three pages.

An interesting case of cooperation between several museums, a newspaper, and a broadcasting station is an experiment with roto-radio talks. For many months the Buffalo Courier-Express has been devoting a page of its rotogravure section each Sunday to pictures supplied by the three Buffalo museums in turn. Each installment is followed on the evening of publication by a museum talk broadcast from station WKBW on the subject of the pictures. An announcement in the paper calls attention to the talks.

Eleven museums started new serial publications of their own during the biennium. Each of these popular serials has the double purpose of creating interest in art, science, or history, and of making its sponsor museum better known.

NATIONAL AND INTERNATIONAL WORK

New developments of nation-wide scope have turned, naturally enough, around the American Association of Museums. International developments have come from relations between this body and its sister organizations abroad.

An instance of national progress will suffice. In 1930 a plan of retirement support for museum workers was drafted by the association of museums after a study of pension plans in other fields. The plan was announced and is ready to go into effect, but the general state of finances has made further discussion of the subject inopportune for the present. In its last annual report, the Carnegie Foundation for the Advancement of Teaching compared this project with its own teachers retirement plan, administered by the Teachers Insurance and Annuity Association, in these words: "Both plans are designed to serve bodies of professional men and women scattered in small groups over wide areas and employed by separately incorporated bodies. Both plans avail themselves of the services of life-insurance companies. Both plans are sound, contractual, and nonpaternalistic."

International relations have been strengthened in several ways. American museums have gained representation in European councils through a place on the executive committee of the International Museums Office. Inter-American museum relations have been furthered by a mission to South America and the subsequent appearance of a book in English on the museums of that continent, and also through representation of museums in two new international groups—an advisory committee of the Pan American Union and the national council of the new Inter-American Institute of Intellectual Cooperation.

Two developments in Great Britain, though nominally unrelated to museum affairs in other countries, have contributed to general advancement. The first was the financing of the Museums Association in 1929 and the consequent opening of permanent headquarters in London. This move was assisted by a grant of the Carnegie United Kingdom Trust—which foundation has since shown its further interest through gifts to museums for reorganizations. The second was the publication of the final report of the Royal Commission on National Museums and Art Galleries. This document, in two volumes appearing, respectively, in 1929 and 1930, has done much to stimulate thought throughout the world.

Museum fortunes are in the ascendency. The achievements of each period bulk large when they are near at hand, but they soon blend into the background against which new achievements stand in relief. The years 1929 and 1930 were important, but they will quickly slip into their appointed places. Happily they were full of works which will bring forth greater works in the years to come.

CHAPTER XXIII

REVIEW OF EDUCATIONAL LEGISLATION

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Contents—Introduction—Educational investigations and surveys—Recodification of school laws—State departments—State school support—County responsibility—County superintendent—Local school organization and support—Teacher training and certification—The curriculum—Teachers pensions—School attendance—Pupil transportation and tuition—Higher education—Education of exceptional children.

INTRODUCTION

The legislature of every American Commonwealth, except Alabama, was in regular session during the years 1929 and 1930 here reviewed. A large mass of educational legislation was enacted. The enactments represent the latest types of legislation on the subjects with which they generally deal. Distinctly new educational movements are not conspicuous among them. Recent educational legislation undertakes principally the improvement of older laws and proceedings along lines already well defined. Moreover, new and significant phases of older movements are not much in evidence. In recent years it has been often contended that there is too much law already in the statute books. This statement contains some truth and some error. In the sense that legislation is prolix and restrictive and with needless duplications and " deadwood " it may be said that there is too much law; but these qualities relate more to the style in which the law appears in the codes than to the nature or intent of the law. However, there can hardly be an excess of laws in the sense that they are positive and constructive and promote, guarantee, and protect the best interest of society. With respect to educational legislation it may be said that so long as public-school conditions remain below widely approved standards, as many of them still are, so long as school administration becomes more complex, and so long as educational standards advance, better and additional laws will be necessary. Among the present needs are more school funds, improved school buildings, efficiency in school business, and properly trained teachers. Until these things are accomplished the proposition that there is too much educational legislation will be untenable.

EDUCATIONAL INVESTIGATIONS AND SURVEYS

Educational legislation is slowly adopting scientific methods of procedure. The practice of legislatures to employ experts to conduct state-wide studies or investigations to obtain data on educational conditions as a basis for formulating legislative and administrative policies affecting the schools continued unabated during the biennium; it is the most outstanding general feature in recent educational legislation. Critical public opinion, demanding economy and efficiency, and the growing science of education favor this practice. During the year 1929 more than a dozen state-wide educational investigations or surveys were provided for by legislative action.

California provided for a State commission of nine to investigate the geographical, financial, and organizational problems of public education, and appropriated $50,000 for this purpose.

The Delaware legislation authorized the governor to appoint a committee to investigate conditions relative to a teachers' retirement fund, especially as to whether the State could bear the expenses of such a system, and to report to the next legislature.

Hawaii created a legislative committee to study the educational conditions in the Territory.

Illinois created a commission of six members to investigate the complete revenue system of the State and to recommend such legislative and constitutional changes as they might deem necessary for equalized taxation. The sum of $25,000 was appropriated for this purpose.

Iowa authorized a survey by the State superintendent of public instruction concerning handicapped children, and appropriated $8,000 therefor.

Indiana made provision for the appointment of a commission selected by the governor to (1) investigate the number, condition, organization, control, maintenance, and efficiency of joint and consolidated school districts, with a view of standardizing, unifying, and codifying the existing laws applicable thereto; and (2) to report results of such survey to the next legislature with the form of such bills for legislative approval as deemed necessary for improvement of existing laws.

Kansas created a commission to study the number and condition of handicapped children and disabled adults, and appropriated $15,000 for this purpose.

Maryland provided for a commission to investigate higher education in the State and to recommend a State policy with respect thereto and a plan for carrying out and financing such policy.

Massachusetts created a commission to study the question of increasing school-attendance requirements and appropriated $5,000 therefor.

Michigan created a commission to survey the State educational system.

Missouri created a State survey commission of seven to study and investigate the financial resources and needs of the several departments of the State government, including the educational institutions and the public-school system and " the facilities afforded to each child of whatever race to secure an education, and to report to the governor thereon."

The New Jersey Legislature of 1929 and 1930 continued the survey commission created in 1928 to study the public schools and educational institutions and to recommend a comprehensive program of public education and sources of revenue for its support. In order that the people of the State might be informed as to the problems and conditions arising in agriculture, New Jersey also provided for a commission to study the practicability of broadcasting by radio information concerning agricultural subjects.

Furthermore, New Jersey created and continued in 1929 and 1930, respectively, the commission on county and municipal taxation and finance for the purpose of investigating taxation and financial systems in counties and cities in order to determine any practical method of reducing or equalizing taxation, and appropriated $50,000 for this purpose.

North Carolina created a commission to study school problems and to suggest needed legislation for improving public-school administration and to secure school economy.

Pennsylvania created a commission of 10 members for surveying the present plan of financing public schools and provided that the investigators, experts, and other employees necessary for the survey be provided by the State department of public instruction, and appropriated $10,000 for this purpose.

RECODIFICATION OF SCHOOL LAWS

The adding of new school laws and amendments at each session of the legislature over a period of many years generally results in illogical arrangement, duplications, and sometimes inconsistencies in school laws. The primary aim in the enactment of a new school code is to secure a logical arrangement of the law and to eliminate duplications, inconsistencies, deadwood, etc. Occasionally organic or substantive changes are sought at the time of codification.

Within the past two years Alaska, California, and Mississippi recodified their school codes. North Dakota and Tennessee appointed State code commissions to study how their school laws may be simplified and improved. (See Educational Investigations and Surveys for Indiana, p. 772.)

STATE DEPARTMENTS

Current legislation continues to fix greater responsibility in the State school officials for the administration of the public-school systems. During the biennium a number of changes as to the composition and functions of State departments of education were made by legislative enactment.

The Legislature of California unified and increased State administration of education by expressly providing that the State department of education shall be administered through the State board of education, which shall be the governing and policy-determining body of the department, and that the State director of education shall be the executive officer of the State board. It also authorized the State board, upon recommendation of the State director of education, to establish such divisions in the State department as in the judgment of the board are necessary for proper transaction of the business of the department. Furthermore, it empowered and directed the State board of education to elect, on the nomination of the State director of education, the presidents and principals of teachers colleges and other schools governed by the State department. Upon the recommendation of the State superintendent, who is also State director of education, the State department of education was authorized to take jurisdiction of any district high school which is not supported in whole or in part by district taxes and to appoint a qualified person to exercise immediate supervision over such school and to fix standards for school sites. Still another function of special interest was added to the State department, which was authorized to establish courses of instruction for inmates of "any State institutions" upon request of the governing authorities thereof, and under their arrangement to give examinations therein and to grant certificates of progress on completion of such courses. This appears to be the first legislative enactment which assigns this function to a State department of education.[1]

The Legislature of Delaware authorized the State board of education, after consultation with the local board of school trustees, to determine the number of grades to be taught in a given school.

[1] In 1929 the Texas Legislature directed the Texas Prison Board to arrange for the teaching of reading, writing, spelling, arithmetic, and the Federal and State constitutions to all inmates of the State penitentiary, and to allow credit toward reducing the terms of imprisonment to those giving or receiving such instruction.

Florida created the office of State director of buildings and building standards, under the authority of the State board of education. The director shall be nominated by the superintendent of public instruction and employed by the State board of education, and he shall be a licensed architect and especially trained in school architecture. He shall, under the direction of the State board of education, promulgate rules for the construction or remodeling of public-school buildings according to modern standards of school architecture.

Mississippi authorized the State superintendent of education to employ the following State officials: A supervisor of high schools, a supervisor of music, and two supervisors of "rural and elementary schools."

New Hampshire increased the members of the State board of education from six to eight and required that two members should be trustees of the State university.

New Mexico directed the State board of education to set up a bureau of textbook distribution and property accountant to contract with, and order from, publishers textbooks for use of first and second grade pupils in the public schools, and provided that all costs of such textbooks be paid out of the State common-school fund. The sum of $35,000 per annum was appropriated from the proceeds of the tobacco tax provided for in chapter 192 of the 1929 laws.

Oklahoma abolished the State board for vocational education and vested its powers and functions in and under the control of the State board of education, and designated the State superintendent of public instruction as the director of vocational education.

Oklahoma vested in the State board the matter of examination and certification of all teachers and repealed the county and city certification law.

Rhode Island abolished the office of assistant commissioner of education and authorized the reorganization of the commissioner's division.

The most significant changes occurred in Texas. In February, 1929, the Governor of Texas proclaimed the adoption of the constitutional amendment voted on in November, 1928, changing the composititon of the State board of education. The amendment abolished the ex officio State board composed of the governor, comptroller, and secretary of state, and directed the legislature to provide a State board whose members shall be appointed or elected and shall serve for not more than six years, as the legislature shall prescribe. In 1929 the legislature created a State board of nine members, to be appointed by the governor with the advice and consent of the senate, and provided that after 1935 the members shall serve for six years and their terms shall overlap so that three members

shall retire biennially. It also provided that the State board shall elect one of its members president and that the State superintendent shall be ex officio secretary. Furthermore, the legislature enlarged considerably the responsibility of the State board by adding the following functions and duties: Required it (*a*) to consider and report biennially to the governor on the financial needs of the public free schools; (*b*) to recommend to the governor concerning proposals for establishment of new educational institutions; (*c*) to consider and report on financial needs, scope, and work of State institutions of higher learning, and to recommend such changes in their courses of study as the needs may warrant with especial reference to elimination of any needless waste or duplication of work; (*d*) to select a textbook committee of five experienced and active educators in the public schools of Texas to examine books submitted for adoption and to recommend thereon to the State board of education;[2] (*e*) to consider the athletic necessities and activities of the public schools and biennially report to the governor the proper legal division of time and money to be devoted to athletics; and (*f*) to prescribe rules and regulations for the certification of teachers and for examining applicants for such teachers' certificates in accordance with State laws.

STATE SCHOOL SUPPORT

Financing public education still remains the foremost problem in educational legislation. Not only does it involve the task of obtaining adequate funds, but also that of equalizing school facilities and school costs. During the biennium this subject received more legislative attention than any other problem of education. The principle that school facilities and school costs should be equalized as far as practicable throughout the State won considerable legislative sanction; in fact, it appeared the most impelling and significant principle in legislation relating to school support. During the two years here reviewed legislation toward equalizing school opportunities or costs or both appeared in more than one-half of the States. It is noteworthy that legislation along these lines generally includes provisions for, or otherwise results in, increased State responsibility for providing necessary school funds. Examples of legislative provisions for State school support are here enumerated.

Alaska appropriated the following increases in Territorial support of schools for the biennium ending June 30, 1931: $65,000 for the support of schools in cities and incorporated school districts; $25,000 for schools outside of cities and incorporated districts for like period; $5,000 for pupil transportation for same period; and $5,000

[2] The former State text book commission was abolished and its duties vested in the State board of education.

for providing school facilities in communities where such facilities are lacking and where there are fewer children than required by law for establishing a school district.

Arkansas appropriated $3,000,000 from the State equalization fund for the biennium ending June 30, 1931. One-fourth of the foregoing amount is to be used by the State board of education under reasonable rules to aid in the erection of new school buildings in natural school centers; and to aid in consolidation of schools in order that high-school advantages may be placed in reach of all youth of the State and that such aid shall be given first to communities most in need and that will consolidate for such purpose, and where a reasonable bond issue will not erect and equip adequate buildings; provided, however, that such aid shall be given only to districts which levy the maximum tax permitted by law. Arkansas increased the sales tax on tobacco, the proceeds of which are to be used for educational purposes, and appropriated $750,000 from the income tax to the credit of the school equalization fund.

Connecticut appropriated $35,000 to establish an industrial revolving fund to purchase materials for fabrication in connection with the administration of trades and vocational education.

Delaware appropriated $6,500,000 for current school expenses, which is an increase of $1,500,000 over the previous biennium; continued its school building program of 1927; and authorized the expenditure of $3,750,000 during the biennium for the improvement of school buildings, grounds, and equipment in various school districts, which was an increase of $750,000 over the previous biennium. Delaware also provided an emergency fund for rebuilding schools destroyed by fire, by authorizing the governor, upon requisition from the State department of education setting forth the details and necessary funds for rebuilding such schools, to order the State treasurer to set aside the necessary amount from the State school fund in a special account known as the State school emergency fund. (See Local School Organization and Support, p. 786.)

Florida levied a 1-cent tax on gasoline to be credited to the public free school fund. From the receipts of this tax $400,000 shall be set aside annually for a permanent building fund to be used by the board of control for erecting and constructing buildings for the institutions of higher learning. A State tax of one-fourth mill was also levied to be distributed to counties, and provided that two-thirds of all interest on State funds shall be also distributed to counties; and provided also that the public free-school fund shall be apportioned to each county in proportion to the aggregate days school attendance of such county bears to the aggregate days attendance of all the counties.

Georgia increased from one-half cent to 1 cent its gas tax for the equalization school fund. It is estimated this increase will yield about $1,250,000.

Illinois increased the State common school fund from $8,000,000 to $10,000,000.

Indiana provided that 45 per cent instead of 30 per cent of the money derived from the 7-cent State common-school levy shall be distributed as school relief money: *Provided, however*, That in order for a district to receive such aid its supplementary tuition and special school tax must equal $1.20 on each $100.

In 1930 Kentucky appropriated $1,250,000 to equalize educational opportunities in school districts where such opportunities are below the level prescribed by law and by the State board of education. This money shall be apportioned to districts whose budget and salary schedule have been approved by the State board of education and which levy the maximum school tax permitted by law, and which can not, by using all the State per capita and one-half of the total revenue, employ its teachers seven months annually at a minimum salary of $75 per month, on the basis of 1 teacher for every 40 school children. The appropriation is to be prorated so as to enable such school districts to maintain the said standards and with additional amounts for high school and college training as provided in the approved salary schedule.

Maine appropriated $25,000 increase for the school equalization fund.

Minnesota appropriated $11,210,000 for the biennium for aid to high, graded, semigraded, consolidated, and rural schools, to be distributed as provided by law, which was $210,000 more than during the previous biennium.

Mississippi authorized the State board of education to increase State aid from $1,000 to $2,000 to each county supporting an agricultural high school.

Missouri continued the $300,000 State annual appropriation made in 1927 for adding teachers' training courses in high schools.

Montana authorized by referendum a $3,000,000 bond issue for buildings at the State university, and a 3-mill State levy to support higher education.

Nevada made a $2,000 increase in the annual amount appropriated to aid night schools and authorized a $10,000 increase per annum in the State school reserve fund.

In 1930 New Jersey granted to the school fund the increase in tax on railroad property which had been used to the benefit of the road and institutional funds, and provided $100,000 increase in the annual apportionment from the State school fund.

New Mexico assumed State responsibility for paying the cost of providing free textbooks and their distribution for use in public schools of the State, which shall be paid out of the State common-school fund; and appropriated for this purpose $35,000 annually from the proceeds of the tobacco tax which was levied in 1929 on the sale or consumption of cigars, cigarettes, smoking and chewing tobacco, etc., the proceeds of which shall be paid into the State general fund.

In 1929 New York provided that the annual State apportionment to districts employing but one teacher for the year ending July 31, 1931, and each year thereafter shall be $1,500 less the amount of a 4-mill tax on the taxable property of said district: Provided, That no apportionment shall be greater than the amount of the difference between the total school costs and the amount resulting from a 4-mill tax: And provided further, That no district shall receive less than $425. This apportionment is in lieu of all other State aid to 1-teacher districts, except the transportation quota and the compensation and expense of teachers attending institutes. School districts were required to maintain common schools 190 days (previously 180 days) in order to receive State aid. Nonhigh-school districts were required to provide transportation when necessary for pupils who have completed the eighth grade and are receiving academic instruction in another district, and appropriated State aid, known as transportation quota, sufficient to pay one-half the cost of such transportation, subject to the approval of the State commissioner of education. New York also appropriated to each city and union free-school district which maintains an approved vocational school, $50 annually for each nonresident pupil to whom 38 weeks instruction have been given, or a proportionate amount if for 8 weeks or more; and also extended additional apportionment, known as equalization quotas, to districts which employ two or more (formerly the law specified five or more) teachers and which provide adequate academic instruction of pupils who have completed the eighth grade. In 1930 New York provided that all money apportioned by the State for the support of common schools shall be applied to the payment of teachers' salaries and to the cost of school maintenance (previously it could be applied only to teachers' salaries); and provided the following State apportionment to districts which maintain approved high schools: $1,500 for each elementary school-teacher, $1,900 for each high and part-time school-teacher, less the amount of 60 cents on each $1,000 of taxable property within the respective districts.

North Carolina appropriated $10,500,000 for the biennium to be distributed among the counties for equalizing school costs and opportunities, which is $4,000,000 more than was appropriated for the

previous biennium; and provided for the continuance of the State board of equalization, created in 1927, and, in addition to the duties originally assigned to it, directed it to investigate, study, and compare the school costs in the various counties and to fix standards of school costs therein. The foregoing board was authorized to (*a*) examine county school budgets, (*b*) supervise pupil transportation, and (*c*) to approve or disapprove vouchers for payment of equalization fund to any county that refuses or fails to conduct its schools upon a businesslike, efficient, and economic basis.

North Dakota amended its law relating to the apportionment of State school funds so as to equalize as far as practicable educational opportunities in rural districts. Under its amended law each State rural school of the first, second, and third class is to receive $100, $80, and $60 per annum, respectively, which is double the amount previously granted for each class; and provided that $10,000 may be used to aid unclassified rural, graded, and consolidated schools.

Oklahoma appropriated $250,000 for the fiscal year ending June 30, 1931, to supplement the special common-school equalization fund, and to be distributed in the same manner as the said fund.

Pennsylvania appropriated $100,000 to the department of public instruction to be used in aiding financially handicapped school districts where the function of the educational system is seriously interfered with and authorized the said State department to fix the amount to be paid in each case.

Rhode Island authorized the use of the income of the permanent school fund to assist towns in building schoolhouses.

Tennessee appropriated $10,400,000 for schools in lieu of the 33⅓ per cent of the State gross resources.

Texas, in order to promote public-school interest in the rural schools and to equalize the educational opportunities of all children living in small and financially weak districts, appropriated $5,000,000 for the biennium ending June 30, 1931.

In November, 1930, Utah, by constitutional amendment, removed the maximum property tax limit of 8 mills for State purposes; reduced the maximum property tax for general State purposes from 4½ mills to 2⅖; increased the maximum State property tax for high schools from one-half mill to 2⅕, the revenue from which is to be distributed as the legislature may provide; removed the maximum State tax limit of 3 mills for district school purposes; and permitted a levy sufficient to raise an amount equal to $25 for each scholastic person in the State, and in addition an equalization fund, which when added to other revenues therefor shall equal $5 for each scholastic, to be distributed as the legislature may provide. Another Utah act authorized the State board of education and the State board

of equalization, acting jointly, to increase State aid in order to provide an adequate and sufficient school program to any school district, with the consent of the county commissioners having jurisdiction over the district applying therefor, and to authorize additional levy in such districts, which additional levy shall not exceed 2 mills.

Vermont appropriated $20,000 for the biennium to match money privately raised through parent-teachers' associations or otherwise for standardization of rural-school buildings.

Wisconsin provided State aid to nonhigh-school districts which maintained first and second class rural graded schools; and defined first-class graded schools as those having three or more departments, and second-class as those having two departments. The aid is provided upon the following conditions: Such schools must be maintained for nine months annually; must have not more than 45 pupils in average daily attendance in any one department; and all teachers must be efficient. Schoolhouses must be kept in good condition, must have sufficient equipment, and must be inspected and approved by the State superintendent or some other member of his staff. Wisconsin also authorized nonhigh-school districts to offer two years of instruction beyond the eighth grade and in conformity with the requirements of the State high-school course of study, and provided State aid for such advanced courses in the amount of $25 per annum for each pupil enrolled in three courses and in attendance for 120 days during the preceding year. Wisconsin discontinued State aid for teachers' county training schools located in counties where a State normal school is situated. (See Teacher Training and Certification, p. 792.)

COUNTY RESPONSIBILITY

Recent legislation shows a trend toward placing greater responsibility upon the county as a unit in educational administration. This responsibility has shifted from the district and not from the State.

The county unit system for school administration has been fairly well developed in the following States: Alabama, Florida, Kentucky, Louisiana, Maryland, New Mexico, North Carolina, Tennessee, Virginia, and Utah. A number of others have the county unit system in some counties, or the county unit system partially developed; among these States are Arkansas, California, Georgia, Minnesota, Mississippi, Montana, Ohio, Oregon, South Carolina, and Texas.

Recent legislation relating to county unit systems is of the permissive type, which generally authorizes counties under certain conditions to form county unit systems. During the two years here reviewed several States enacted provisions of this type.

In 1929 the Arkansas Legislature sought to increase county responsibility in school administration by authorizing the electors in any county (two counties excepted) by popular vote to consolidate all the local common and special school districts into one school district (or into two or more districts) embracing all the territory of the county.[3]

Georgia authorized the voters in any county, with a city of over 200,000 population, to elect to consolidate all public schools under the management and jurisdiction of the county board of education and to provide that the duties and powers vested in local school authorities shall pass and be vested in the said county board, so as to enable as far as practicable the schools of the county to be managed as one consolidated system.

Indiana increased the authority of county superintendents in respect to county teachers' institutes.

Minnesota authorized any county having less than seven school districts to elect to consolidate such districts into one county system, which shall be under a county school board consisting of five members, elected for five years, and the term of one expiring each year; and made it the duty of county boards so created to furnish school facilities to every school child in the county, either by building schoolhouses, leasing schoolrooms, transporting or boarding school children when expedient, and to provide necessary supplies, texts, and library books.

Mississippi increased the power of county school boards to consolidate schools and provided for the extension of administrative units over larger territory. It authorized county school boards to create, alter, or abolish common-school districts; consolidate two or more districts or parts thereof; or to alter or abolish consolidated districts; and prescribed the procedure for such creation, alteration, or abolishment. This prerogative may be exercised by order of the said county board, subject to newspaper publication and notice that unless 20 per cent of the electors petition against such order within 30 days, the order shall be final; if petition is filed the question must be decided by a majority vote of the electors. The act also authorized county school boards to order the creation, alteration, or abolishment of school districts upon a petition filed therefor signed by a majority of the electors, which order shall be final.

New Mexico increased the members of the county boards of education from four to five, by making the county superintendent of schools ex officio member of the county board.

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[3] In January, 1930, the Supreme Court of Arkansas held this act void on the ground that the exemption of the two counties did not constitute a reasonable basis for classification for school purposes, and that such exemption amounted to local or special legislation in conflict with constitutional amendment 17. (Webb *v.* Adams, 23 S. W. 617.)

Ohio vested greater discretion in the county boards of education for the distribution of the county school levy.

The Texas Legislature, in order to provide sufficient scholastic population to support or justify proper elementary and high school facilities, required the county board of school trustees in certain counties (counties having from 930 to 1,075 square miles, and from 34,300 to 34,500 population) to rearrange the territory of their respective counties into convenient school districts, and authorized said county boards to create additional school districts or to consolidate districts. The legislature also required the said county board of school trustees to apportion the county school funds to the respective school districts on a per capita basis, and to set aside a certain amount for a county equalization fund to be used for equalizing as far as possible the educational opportunities in the county and for giving special aid to small and weak districts. Texas, by another act, authorized county boards of school trustees in certain counties (counties with not less than 9,300 scholastics) to employ a "rural school supervisor" to plan, outline, and supervise the work of the primary and intermediate grades of the rural schools of the county. Such rural supervisor shall have a permanent teacher's certificate and four years successful experience in teaching primary and secondary grades, and shall receive a salary not to exceed $2,000. The employment of a rural school supervisor shall exempt the county superintendent from holding a teachers' institute for rural teachers.

The Legislature of Washington authorized the formation of county school districts in counties having but one high school by providing that when 10 per cent of the electors in any county petition therefor, and when such petition is approved by both the superintendent of schools of said county and by the State superintendent, the county commissioners shall submit the question to the electors of the county at the next general election. If a majority vote in favor of a county school district such district shall be formed, and the board of county school directors shall be composed of three members, one of whom shall be a resident of each of the county commissioners' district, and shall be chosen by the electors of the county at the general elections. The board of directors of such county school district shall appoint and fix the salary of the county superintendent, and the elective county superintendent is eligible to such appointment.

COUNTY SUPERINTENDENTS

Legislation during the biennium shows a decided tendency to increase the salaries and qualifications of county school superintendents.

Salary increases were provided for county superintendents in Minnesota, Missouri, Montana, North Carolina, Pennsylvania, and Texas; and an assistant to county superintendents was provided for in Mississippi. Increased qualifications for county superintendents were required in Montana, North Carolina, and Wisconsin. Mississippi authorized the employment of county supervisors of primary work and prescribed their qualifications.

In 1930 Mississippi provided an assistant to the county superintendent in counties of the first class, which assistant shall receive not more than $1,500 per annum; and authorized the boards of supervisors of counties of the second and third class to employ an assistant to the county superintendent at not more than $1,200 per annum. Furthermore, Mississippi authorized the county superintendent, with the approval of the county school board and the board of supervisors, to employ a supervisor of primary work for the county schools who shall be a graduate of a standard university or teachers college and have majored in elementary education and had at least two years' experience in teaching. The salary of the county supervisor shall not exceed the salary of a first-grade teacher, but actual and necessary traveling expenses of such supervisor may be allowed not to exceed $50 per month.

Montana required all county superintendents to be holders of a State certificate granted upon graduation from a standard normal school, college, or university, or by examination given by the State board of educational examiners, and three years' successful teaching experience; and raised the minimum and maximum salaries of county school superintendents to $2,000 and $2,400, respectively, which is an increase of $300 in all counties.

Missouri provided an increase in the annual salary of county superintendents of certain counties. Counties having between 100,000 and 350,000 population shall pay $6,000 per annum; and required counties having between 100,000 and 250,000 population to allow county superintendents $3,000 annually for clerical help and traveling expenses.

North Carolina required county superintendents to be college graduates, with two years' successful teaching experience, and to be persons of good business qualifications and executive ability. Minimum salaries of county superintendents were increased to $3,500, $3,000, $2,500, and $2,000 in first, second, third, and fourth class counties, respectively.

North Dakota fixed the minimum salary of $1,800 for county superintendents in counties having not more than 7,000 population; and provided that the salary of the assistant county superintendent of schools shall be fixed by the board of county commissioners (pre-

viously the salary of this official was fixed by law as 60 per cent of that of the county superintendent).

Pennsylvania increased the salary of county superintendents from $2,500 to $3,000 in counties with less than 20,000 population; from $3,000 to $3,500 in counties having 20,000 and less than 45,000; from $3,500 to $4,000 in counties having 45,000 and less than 150,000; from $4,000 to $4,500 in counties having 150,000 or more; and increased the minimum annual salary of all assistant county superintendents from $2,500 to $3,000. Also required county commissioners of second-class counties to provide telephone, typewriters, and stenographic service for county superintendents.

Texas increased the salary of county superintendents in counties having from 100,000 to 150,000 by providing that it shall not be less than $2,800 nor more than $3,800 per annum, and allowed $1,200 to defray expenses; and in 1930 provided that all elective county superintendents shall hold office for four years.

Wisconsin increased the term of office of county superintendents from two to four years and required all county superintendents to be residents of the county and to be holders of an unlimited State certificate.

LOCAL SCHOOL ORGANIZATION AND SUPPORT

Educational legislation for many years reveals a very definite trend toward larger units of local school control and support. This trend is still in evidence. The transition is accomplished by provisions for the union or consolidation of two or more adjacent districts. Recent years have also witnessed legislation in a number of States which authorizes an increase in district school levies and bonds. The demand for efficiency in school administration and supervision, and for economy in school costs favor these changes. Examples of legislation enacted during the past two years relating to district school organization and support are here given.

Alaska, in order to promote better local school administration, reorganized its school districts and created the following: City districts; incorporated districts; village, community, or rural districts; and unorganized districts where special schools may be maintained with fewer children than previously required by law.

Arkansas, in order to aid "less-favored school children," amended its law relating to consolidation of contiguous school districts in two or more counties so as to authorize the county board of education wherein the smaller district is situated to refuse or recall an election to consolidate said district when the said board determines that equal or better facilities may be had by annexing said territory to other school districts within the said county. Furthermore, in

order to provide high-school facilities in small common-school districts whose average daily attendance does not exceed 30 pupils, county boards of education were authorized to annex such district to a contiguous school district within the county. Arkansas authorized special school districts to issue bonds in order to get their financial affairs on a cash basis.

California authorized county boards of supervisors, upon the recommendation of the county superintendent of schools, to annex elementary school districts to the most accessible high-school districts; also authorized school districts to elect to increase the school levy, and to set aside for three years money for school-building purposes to be spent under the direction of the State division of schoolhouse planning.

Colorado authorized county and union high-school districts to increase the school levy from 4 mills to 6 mills when approved by a majority of the electors; and required counties to apportion from the 5-mill county tax to county and union high-school districts sufficient funds to pay the minimum salary of $75 per month to each high-school teacher for every 25 high-school pupils or major fraction thereof.

Delaware repealed its law which provided a county property tax of 1½ mills for schools.

Florida provided for consolidation of districts for taxation purposes in certain counties by authorizing the boards of public instruction of said counties to order an election in two or more contiguous school districts, upon a petition signed by one-fourth of the electors, for the purpose of determining whether said districts shall consolidate for the levying and collecting of taxes exclusively for schools. Certain county boards of public instruction were also authorized to borrow money to pay operating expenses or to fund indebtedness.

Illinois authorized county superintendents of schools to detach territory from a common-school district and annex it to a community consolidated district, upon a petition signed by two-thirds of the voters within the territory described in the petition; also authorized the county superintendents to create or alter high-school districts when petitioned by a two-thirds vote of the electors within the territory described in the petition. Previously the law vested this authority in an ex officio county board for that purpose and upon a petition signed by only a majority of the electors.

Indiana authorized fifth-class cities and incorporated towns to join with townships in which they are situated for the purpose of building and maintaining public schools or to furnish consolidated school facilities, which joint venture may be accomplished by joint resolutions of the respective boards of school trustees published in two

consecutive weekly newspapers; unless a petition signed by 50 electors in said township requesting that the matter be determined by an election shall be filed within six days after last publication, in which case an election shall be held for that purpose. Such consolidated schools shall be under the control and management of a school board consisting of three trustees.

Kentucky authorized municipal boards of education to increase their bonded indebtedness from 2 per cent to 3 per cent of the value of taxable property for the purpose of school accommodations and for acquiring sites, erecting buildings, or for other school purposes.

Maryland authorized various counties to issue bonds aggregating more than $5,500,000 for school buildings and equipment.

Michigan authorized third-class school districts to levy 20 mills for general school purposes and 10 mills for school sites, buildings, and equipment; and permitted fourth-class cities to borrow a limited amount of money in anticipation of tax receipts.

In 1930 Mississippi authorized the trustee of any agricultural high-school junior college which has been approved by the junior college commission as a permanent junior college, with the approval of the supervisors of the county wherein such institution is situated, to borrow money for school-building purposes, and prescribed the procedure for such indebtedness and for refunding the same.

Montana authorized an increase in county school levies from 6 to 8 mills in counties maintaining county high schools; and authorized counties not maintaining county high schools to increase their school levies from 5 to 7 mills in order to assist districts which maintain approved high schools within such counties. Counties of the second, third, and fourth classes were authorized to issue bonds in the amount of $400,000 and all other counties $300,000 for high-school sites, buildings, and equipment. Furthermore, city school boards and county high-school boards were permitted to form a joint board and employ one superintendent for both systems. Furthermore, Montana authorized county superintendents to abandon school districts where no school has been maintained for two consecutive years, and required them to do so if no school has been maintained for three consecutive years, and to attach such territory to contiguous districts.

Nebraska authorized the issuance of bonds for county high schools upon a majority vote of the electors instead of 60 per cent formerly required.

New Jersey provided that when two or more school districts are consolidated their respective territories shall be represented on the consolidated school board and prescribed the manner of selecting the said board.

North Dakota authorized the county commissioners to detach any part of a territory which is more than 3 miles from the central school in a special district and form a new common-school district in case said territory should have an assessed valuation of $100,000 or more for each teacher employed. Another North Dakota act authorized consolidated school districts by a two-thirds vote of the electors to dissolve, and to reorganize rural or graded schools in lieu thereof.

Oregon endeavored to facilitate district consolidation of schools by amending its law which required a majority vote in favor of consolidation in every district proposed to be consolidated before any consolidation could be effected, so as to permit contiguous districts voting favorably to consolidation to be organized into one district providing one of said districts is of the first class.

Pennsylvania required that all petitions for new school districts be submitted for the approval of the State council of education, and prescribed conditions under which new school districts shall become independent. Pennsylvania raised the minimum annual school tax in first-class districts for payment of expenses other than teachers' salaries and refunding indebtedness from one-half to three-fourths mill, and the maximum from 3 to 3¼ mills; and provided that after 1931 the tax shall not be less than 3 nor more than 3½ mills. Second-class districts were authorized to levy a special tax to aid in the support of free libraries.

Texas required any city with less than 100,000 population, upon a petition signed by 25 per cent of the electors therein, to hold an election to determine whether the public schools shall be separate from municipal control. If a majority vote in favor of the proposition, all authority over the public schools in such city, including power to levy taxes and issue bonds for schools, shall thereafter be divested from the municipal authorities and vested in and exercised through the board of education which shall consist of seven members, elected at the general election, and as provided by law for the control and management of independent school districts. Texas, in 1930, enabled common-school districts to be incorporated into independent school districts by providing that when a majority of the voters and trustees of the said district petition the county board of trustees for such incorporation and furnish sufficient evidence that the district when so incorporated will be financially able to maintain high-school work at a reasonable cost per capita, the county board of trustees may order the incorporation. Such incorporated independent district shall be under the governing authority of seven trustees elected at the regular election.

Utah authorized boards of education of adjoining school districts jointly to operate and maintain one or more schools and to pay the

pro rata cost thereof for students who attend in a district other than where they reside or to meet such expenses upon terms mutually agreed upon by the respective districts.

Wisconsin authorized cities to change the number of school-board members and the method of their selection by ordinance of the common council approved by referendum vote of the electors, or by ordinance initiated by a petition of the electors. Wisconsin also authorized the adoption of either of the following two plans: (1) Election of school board of not less than five nor more than seven from city at large at regular city election for 3-year terms; (2) appointment of school board of not less than five nor more than seven by the mayor and confirmation by the council, or election by the council, whichever method is provided for in the ordinance. Local boards of vocational education were permitted to borrow from the State permanent funds.

Wyoming provided for the taxation of interstate common carriers operating any motor vehicle upon the State highways " for the transportation of persons or property for compensation where such operation is in any respect an interstate operation upon the highways running into and or through this State * * *"; and directed the State board of equalization to certify annually to each county traversed by such motor vehicle carriers the prorated valuation of the assessment thereof to which the county is entitled, whereupon the said counties shall levy the tax and divide and adjust the receipts therefrom among each school district. By another act Wyoming authorized high-school districts and other school districts situated therein or covering similar part of the same territory to enter into agreement for joint purchase, construction, and use of school buildings.

TEACHER TRAINING AND CERTIFICATION

For many years legislation has evidenced two important tendencies in teacher certification. One of these is the shifting of the authority to grant certificates from county or local officials to State departments of education. The other tendency is toward more academic and professional training as a basis for certification, with less emphasis upon teachers' examinations. These tendencies continued during the two years here reviewed.

Alaska discontinued examinations for teacher certification and required applicants for teaching certificates to have completed a 2-year course in approved college or normal school, which course included 12 semester hours' credit in education, and provided for elementary, high, life, and temporary certificates. Elementary cer-

tificates are valid for three years and entitle the holder to teach in kindergarten and to the ninth grade inclusive; high-school certificate granted to graduates of 4-year colleges and valid for five years. Life certificates may be granted after 45 months of successful teaching and the completion of one year of graduate study.

Arkansas provided for the establishment of a 4-year teachers' college at Arkadelphia, with authority to confer degrees, and required all pupils entering said college to sign a written pledge to teach in the common schools of the State for a period of two years after their graduation.

California required the State normal schools and State teachers' colleges to prescribe a course in public safety and accident prevention and made the completion of this course a prerequisite for graduation.

Florida directed the State board of education to establish a teacher-training department in one high school for whites and in one high school for negroes in each county of the State, and appropriated $600 to each teacher-training department, providing the county board of public instruction appropriates an equal amount or more to secure a competent teacher.

Hawaii appropriated $150,000 for a new normal school, and required teachers to be citizens.

Illinois improved its certification methods by repealing its teacher-certification law and enacted a law embodying many changes, among which were increased minimum standards for certification. County and city examining boards for the certification of teachers were abolished and new types of certificates were created. It was provided that all certificates shall be State certificates, issued by State authority, and valid in every school district. Provision was made for the exchange of various certificates now in force into two grades of State certificates: (1) Those unlimited in time or life certificates, and (2) those limited in time. Each grade is to provide the following certificates: Supervisory, high school, special, kindergarten-primary, elementary, and prescribed certain standards for each certificate.

Indiana abolished township teachers' institutes, and provided for county teachers' meetings monthly to be held from one to three days instead of five days. Indiana also authorized State teacher-training institutions to establish elementary schools and to accept pupils from adjoining districts.

Iowa raised the minimum requirement for certification to high-school graduation plus 12 weeks normal training.

In 1930 Kentucky abolished the provisional elementary certificate, increased the standard for a college certificate by requiring 128

semester hours of standard college work, and provided for a standard or college certificate for teaching special subjects.

Michigan repealed the county certification law and centralized teacher certification in the State superintendent of public instruction and the State board of education.

Minnesota abolished teacher certification by examination and vested it solely in the State board of education and on the basis of academic and professional work completed by applicants. Two major classes of certificates, elementary and secondary, were created. Elementary certificates were required to indicate the division or grades for which the holder has been trained, and four kinds of elementary certificates were established: (1) Elementary advanced certificate, issued to graduates of colleges showing completion of 4-year course in elementary education; (2) elementary standard certificate, issued to graduates of teachers colleges showing completion of 2-year course in elementary education; (3) elementary limited certificate, issued to persons who have completed a 1-year course of professional training approved by the State board of education; and (4) elementary special certificate (kindergarten, music, arts, etc.), issued to graduates of 4-year teachers colleges. Two kinds of secondary school certification were created: (1) High-school general certificate for teaching academic subjects in junior and senior high schools, issued to graduates of 4-year colleges, if such course included some professional subjects; (2) high-school special certificate (agriculture, home economics, arts, music, etc.), issued to graduates of 4-year colleges by virtue of completion of courses in the special field for which the certificate is applied.

Mississippi authorized State teacher-training institutions to conduct and maintain a teachers demonstration and practice school, and provided for cooperation between such institutions and the counties wherein they are situated as to costs and admission of children to such schools.

New York provided that the qualifications of directors and assistants (as well as teachers and supervisors) employed by the vocational education and extension board must conform to the regulations of the regents of the university and the commissioner of education. By another act New York fixed the classification and salaries of professors in teacher-training departments and institutions.

Ohio provided that the State normal schools at Bowling Green and Kent be organized as 4-year teachers' colleges with authority to confer degrees in education.

Oklahoma abolished the county and city certification law and vested the authority to issue teachers' certificates in the State board of education.

Oregon abolished the provision which allowed a 1-year certificate upon credits secured by examination in other States, and required all applicants for certification from other States to show graduation from a college or to pass the Oregon teachers' examination; and provided that (after January 1, 1930) no elementary certificates shall be issued except to persons who have completed an elementary teacher-training course. Oregon also provided that applicants for high-school teaching must show completion of two semester hours each in secondary education, principles of teaching, and educational psychology.

Pennsylvania, in order that students may acquire practical knowledge of the art of teaching, required all State teachers colleges to provide practice teaching facilities, and directed the State superintendent to prescribe and conduct examinations of students in the State teachers colleges, in order to determine and fix standards of instruction and graduation. Pennsylvania also provided that graduates shall receive such normal school certificate or college diploma as the State council may prescribe. It was furthermore provided that holders of State normal-school certificates after two years' successful teaching in elementary schools of the State shall receive a State normal diploma from the college from which said person was graduated, which diploma shall qualify the holder to teach the subjects written in the State normal certificate in any public elementary school of the State without further examination.

Texas (in 1929) required rural school supervisors to have a permanent teachers' certificate and four years' successful experience in teaching primary and intermediate grades. Texas also provided that teachers may renew certificates by completing three courses in an approved summer school. (Formerly they were required to complete four courses.) Teachers are required to be citizens of the United States.

Texas (in 1930) required all applicants for certificates to teach in public schools to show credit for a course of instruction in both the Federal and State Constitutions of the grade of instruction upon which they are applying for certificate or to pass an examination thereon given by the State superintendent of public instruction.

Utah abolished local examining boards for examining teachers and vested teacher-certification authority in the State board of education.

Vermont authorized the State board of education to award scholarships to worthy normal students for second-year work.

Wisconsin discontinued State aid for teacher-training schools located in counties where a State normal school is situated.

THE CURRICULUM

Legislative enactments during the biennium relating to the public-school curriculum may be summarized as follows: Arkansas, by an initiated act, prohibited the teaching of the theory of evolution in all public schools and colleges. California required instruction in public safety in all public schools and teachers' colleges, prescribed minimum amount of time to be devoted to certain subjects in the elementary schools, and provided for vocational guidance in high schools. Delaware and New Mexico required instruction as to the effects of alcohol and narcotics on the human system. Hawaii permitted the release of public-school children one hour each week in order to receive outside religious instruction. New York authorized all school districts to give instruction in vocational guidance of minors. North Dakota required instruction in the Constitution of the United States in elementary and secondary schools, and made manual training and domestic science in high school optional and unnecessary in order to receive State aid. Oregon required instruction in character education in all grades from 1 to 12, inclusive. Rhode Island extended the teaching of history and government as a basis for American citizenship down to the fourth grade. Tennessee provided for teaching of aviation under the supervision of the State board of education, and appropriated $15,000 therefor, and required instruction in all public schools as to the use and purpose of the American flag. Texas required instruction in physical education in all public elementary and secondary schools, and also required the completion of a combined course in the National and State Constitutions in high schools, teachers' colleges, and universities before graduation therefrom.

TEACHERS' PENSIONS

The problem of teachers' pensions received legislative attention in approximately one-half the States. At the close of the nineteenth century only one state-wide teachers' pension system had been established, namely, in New Jersey. The trend of teachers' pension legislation since then has been in favor of state-wide systems rather than county or district systems.

In 1929 Alaska created a Territorial teachers' pension system and a pension fund derived by deducting 1 per cent from the teachers' salaries, and vested the administration of pensions under a Territorial teachers' pension board consisting of the governor, the commissioner of education, and the Territorial treasurer. It provided that teachers 55 years of age who have taught 25 years may retire on a pension of $800 per annum; teachers 65 years of age must

retire; and teachers becoming permanently disabled after 10 years of service may receive an annual pension sum which bears the same relation to $800 as the number of years taught bears to 20 years.

In 1929 Idaho abolished its State pension system, established in 1921, and provided that all money in the teachers' retirement fund be paid to the contributors upon the filing of approved claims, and the residium be transferred to the State general fund.

The Legislatures of Delaware, North Dakota, and Michigan appointed State commissions to study their respective teachers' retirement problems.

Teachers' retirement legislation for the biennium is characterized primarily by efforts to improve, by appropriate amendments, retirement systems already established. Provisions achieved by amendments may be summarized as follows: Retirement of presidents of teachers colleges in Arizona; extension of teacher retirement so as to include other school employees in California, Colorado, New Jersey, and West Virginia (applicable to Charleston); teacher-retirement systems for two or more districts under same personnel boards employing 500 or more teachers in California; retirement levy increase from one-fifth mill to two-fifths in first-class districts in Colorado. In Connecticut provisions were made for retirement at 60 after 20 years' service, instead of 15, upon payment of five annual assessments. Additional retirement allowance was granted in Connecticut under certain conditions; and 10 years' service outside of the State was allowed if a teacher pays the annuity assessments thereon. Provision was also made for reinstatement of withdrawn members.

The board of education for the city of Savannah and the county of Chatham, Ga., was authorized to administer funds appropriated or contributed for local teacher retirement. Retirement of school superintendents or members of boards of examiners in cities of more than 250,000 population was authorized in Illinois. Issuance of receipts for retirement assessments was provided in Indiana. Iowa extended its retirement system, formerly applicable to cities of 75,000 or more population, to cities of 25,100 or more. Increased retirement allowance was authorized in Massachusetts. Michigan reenacted its state-wide pension law, which was apparently inadvertently repealed in 1927. Retirement after 40 years' service if 65 years of age was granted in Nebraska (previously age was not a factor). Minor changes affecting retirement membership, contributions, payments of annuities, and dates of retirement applicable in New York City were enacted. Restoration to retirement system of withdrawn members was provided for in Ohio.

Oregon required the annual report for the city of Portland to show the financial status of the teachers' retirement system in that city.

In Pennsylvania provisions were made for requiring certain teachers retired for disability to be ready, if physically able, under direction of the school directors, to advise and assist school officials and new teachers, to substitute for teachers, visit pupils' homes, and attend educational conferences, etc. Three per cent deduction from salary for pension fund instead of amount according to length of service was made in Porto Rico. Vermont increased the minimum retirement allowance to $200 per annum. Retirement for teachers in districts annexed to cities having retirement systems was granted in Wisconsin.

Provisions for paying teachers' salaries during sickness, while not regarded as a pension, were enacted in four States during the biennium. Florida granted 5 days' sick leave annually and 10 days if sickness resulted from injury incurred in discharge of duty. Maine authorized school boards to grant sabbatical leave to teachers on as much as half pay, and to adjust salaries of school employees absent because of sickness. Nevada authorized school boards to grant 10 days' leave in any one year with pay on account of personal illness or death in immediate family, or 20 days in two consecutive years, or 30 in three consecutive years. Wisconsin amended its workmen's compensation law so as to authorize payment of teachers during disability.

At present state-wide pension systems for teachers operate in Arizona, California, Connecticut, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, Wisconsin, and similar systems in the District of Columbia and the Territories of Alaska, Hawaii, and Porto Rico. Teacher pension systems applicable only to certain cities or districts exist in approximately 15 other States.

SCHOOL ATTENDANCE

During the biennium a dozen or more States amended their laws so as to promote increased school attendance. The changes for increased attendance included provisions for a longer school term, additional educational qualifications for labor permits, and lower minimum compulsory school attendance ages. Alaska passed a law requiring attendance at 7 years of age instead of 8, and Oregon required attendance at 8 years instead of 9. Hawaii permitted children 14 years of age and below the sixth grade to attend vocational or opportunity classes in lieu of regular school, and allowed minors 17 years of age to enter first-year high school only upon approval of the superintendent of public instruction. Illinois clarified and strengthened its school attendance law; required an eighth-grade

education instead of a sixth for labor permits, and prescribed an 8-month school term instead of 7. Iowa exempted high-school graduates from attendance at continuation schools. Maine required schools to operate 32 weeks annually instead of 30. Maryland required the completion of the elementary school instead of the fifth grade for labor permits (amounts to sixth grade in Baltimore, eighth grade in three counties, and seventh grade elsewhere). Massachusetts provided a commission to study the problem of increasing school attendance, especially of employed minors. Mississippi allowed children to attend part-time schools in lieu of regular day school, and extended the minimum compulsory attendance period from 80 days to full term in school districts of 1,000 population. Missouri required the completion of the sixth grade for employment during school hours. Nebraska increased annual compulsory attendance period from 6 months to 135 days if term is 7 months, to 150 days if term is 8 months, and to 160 days if term is 9 months. New York increased the annual school term from 180 days to 190. Texas reduced the free school age from 7 to 6 years. Utah provided for the exemption of children over 16 who have not completed the eighth grade from attendance at continuation school, if "proper influences and adequate opportunities are provided for in connection with their employment."

PUPIL TRANSPORTATION AND TUITION

Legislative enactments providing for pupil transportation and tuition appeared in more than one-third of the States during the biennium. The provisions enacted on the subject reveal considerable effort to increase school attendance, especially in secondary schools, by facilitating school accessibility. School efficiency and economy seem to favor this method. Provisions of this kind are here summarized.

Alaska provided for Territorial payment of tuition of pupils living outside the limits of incorporated school districts and who attend the corporate schools, and authorized school boards to enter into contracts for transportation of pupils residing more than 2 miles from school. Arkansas provided that the tuition of nonresident high-school pupils be paid by the districts wherein such pupils reside. California permitted high-school districts to transport all pupils living at an excessive distance from a secondary school or who are caused financial hardships by travel. Colorado authorized boards of education of all school districts (third class excepted) to transport such pupils as in their opinion require transportation or to pay board if transportation is impracticable, and permitted pupil transportation in third-class districts upon a majority vote of the electors. Idaho required districts whose children

attend school in another district to pay tuition therefor. Iowa provided for State payment of tuition of children of employees on State or Federal land. Kansas authorized school boards to transport elementary and secondary pupils to schools maintained by other boards. Kentucky granted free tuition in all State secondary schools and colleges to every child between 16 and 21 whose parent died in the service of the World War. Minnesota authorized school districts to pay for the transportation of elementary and high-school pupils who attend school in another district. New Jersey increased apportionments for tuition of nonresident high-school and elementary pupils. New York required nonhigh-school districts to provide necessary transportation for their qualified pupils attending high schools in another district and granted State aid therefor equal to one-half of transportation costs; also authorized qualified indigent Indian children on State reservations to attend high or vocational schools without charge and provided for their necessary transportation at State expense. New York also granted $50 per annum for 38 weeks' instruction for each nonresident academic pupil attending an approved vocational school. North Dakota provided for payment of State and county tuition funds to the United States whenever the educational responsibility of a school district within an Indian reservation is completely taken over by the United States. Oregon authorized high-school districts to transport pupils when deemed advisable; and provided that where pupils are transported to high school in another district the cost thereof shall be paid from the county high-school tuition fund. In 1930, South Carolina appropriated $350,000 from the school fund for pupil transportation to be apportioned to counties on basis of per mile, and directed the county boards of education to designate official routes for transportation. Texas removed the minimum tax limit in school districts which was previously required before they could receive State reimbursement for high-school tuition. Wisconsin required the transportation of all pupils living more than 2 miles from school; and authorized school districts, in lieu of transportation or board and lodging, to pay the tuition of pupils attending school in another district when such attendance is convenient without transportation. When any pupil more than 4 miles from school in his district attends school in another district, his home district must pay tuition. Wisconsin also authorized nonresident students to attend teacher-training courses in high school under the same terms as other nonresident pupils.

HIGHER EDUCATION

Noteworthy legal developments relating to higher education appeared in a few States during the biennium.

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California limited the establishment of junior colleges to districts having $25,000,000 or more valuation and an average daily attendance in high schools of 1,000 or more, except that a county junior college may be established in a county having 500 or more pupils in average daily attendance in the high schools.

California also provided for discontinuance of junor colleges when attendance falls below 200; authorized junior college district to maintain dormitories; authorized the State board of education to prescribe uniform system of cost accounting for junior colleges; allowed persons over 18 years of age, though not high-school graduates, to attend junior colleges; and appropriated State aid to meet deficiencies in junior college funds.

For legislation on higher education in Maryland, see page 772.

Mississippi authorized boards of trustees of permanent agricultural junior colleges, with the consent of the board of supervisors of the county where the institution is located, to borrow money for construction and repair of buildings of said institutions.

Texas authorized the establishment of junior colleges in independent districts and cities having a valuation of $12,000,000 and a high-school enrollment of not less than 400, and also authorized an election therefor and prescribed the procedure.

By special enactments Arkansas provided for the creation of the Western Arkansas Junior Agricultural College, and Georgia changed the Middle Georgia Agricultural and Mechanical Junior College to the Middle Georgia College.

Michigan authorized school districts with 18,000 population to establish junior colleges; previously only districts with 25,000 population were so authorized. The 1927 law which authorized districts having 500,000 population to establish 4-year colleges was amended in 1929 so as to enable any district to contract with another district which maintained collegiate work in the same county for the instruction of its high-school graduates and to pay tuition therefor.

The principal feature observed in junior college legislation is the restriction of the establishment of junior colleges to cities or districts which can adequately support such institutions, taking into consideration population and wealth.

Recent years have witnessed a marked tendency of legislatures to develop normal schools into 4-year teachers colleges. This practice was evidenced in 1929. In that year the Legislatures of Arkansas, Georgia, Indiana, Ohio, and Texas (Kentucky in 1930) authorized the development of certain designated normal schools into 4-year teachers colleges.

Nebraska authorized any city of the metropolitan class (effective in Omaha only), with the consent of a majority of the electors, to

establish and maintain a municipal university with degree-conferring power; and provided that such institution should be under the control and management of a board of regents consisting of nine members appointed by the city board of education for 4-year terms, and authorized a local levy of 1 mill for the maintenance of the municipal university.

During the biennium two important court decisions directly concerned with higher education were rendered. In 1929 the North Carolina Supreme Court sustained the authority of the board of education of Asheville to maintain a junior college from the public-school funds. When the junior college was established Asheville was a special-charter school district and not subject to the limitations of the general school law. The legislature of 1929, by special act, changed the control and management of the schools of Asheville from the city board of commissioners to the city board of education which continued to maintain the said college. In upholding the authority of the board of education to maintain the college the court said: "The defendants [the board of education], as the successors of the board of commissioners of the city of Asheville, have the same powers and are under the same legal duties as said board with respect to the public schools. * * * We find no statute making the operation of said college mandatory. It is within the discretion of the defendants. The exercise of such discretion by defendants is not subject to judicial review."

Another noteworthy judicial decision relating to higher education was rendered in 1930 when the Supreme Court of Nebraska sustained the constitutionality of the municipal university law above mentioned.

EDUCATION OF EXCEPTIONAL CHILDREN

Legislation to promote the education and physical welfare of exceptional or atypical children continues to increase. During the years 1929 and 1930 enactments appeared in more than half of the States for the benefit of such children. Examples of provisions for promoting their education are here indicated.

California authorized school districts to establish 24-hour schools for children presenting serious behavior problems. Hawaii appropriated $25,000 for aid in the education of crippled children. Illinois provided State aid for the education of children of defective vision. Iowa granted State aid to blind students attending institutions of higher learning. Kentucky authorized the State school for the blind to use money derived from the sale of articles produced in the workshops of the blind in the erection and repair of buildings and for equipment.

Outstanding enactments relating to the education of physically handicapped children appeared in Maryland. The legislature required such children to be reported in the school census, and required the State board of health to examine and classify them. The State Board of Education of Maryland was directed to prescribe the curriculum and equipment for special schools or classes; and $2,000 was appropriated annually for each State-approved special class of not less than 20 pupils. Maryland also established a division for vocational rehabilitation and placement of disabled persons under the control of the State board of education and authorized the city of Baltimore to issue bonds amounting to $1,500,000 for school buildings for the instruction and training of mentally and physically handicapped children and for parental schools.

Minnesota provided for State aid to 10 instead of 5 blind persons attending a higher institution or conservatory of music. Nevada required counties to provide for the support and education of indigent feeble-minded children. New York provided for the education of blind youth under 12 years of age at State expense; and permitted local school authorities to establish special classes with fewer than 15 pupils. New York amended its law which authorized cities and union free-school districts to establish special classes where there are 15 or more children three years mentally retarded so as to authorize establishment of such classes where there are 10 mentally retarded children without specifying the degree of retardation. Oregon authorized school districts to provide educational opportunities to physically handicapped children between 6 and 20 years of age, and provided a levy therefor. Pennsylvania appropriated $1,000 for the investigation of the State institutions for the deaf and blind. South Dakota appropriated $70,000 for building improvements in the State school for the deaf. Tennessee provided for the treatment of physically handicapped children by the State department of health, and provided for their education in suitable institutions. Virginia authorized local school authorities to establish and maintain special classes for the education of six or more blind children to be operated jointly by the local school board and the State commission for the blind; and provided for the compulsory attendance at special classes of deaf and blind children. West Virginia appropriated $80,000 for the treatment and care of crippled children. Wisconsin provided for the instruction of crippled children in the State orthopedic hospital at Madison under the direction of the superintendent of schools of the said city.

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