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Annual Report of the



**FEDERAL
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AGENCY**

1949

**Office
of Education**

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1949

The Annual Report of the Federal Security Agency contains the Administrator's report and the reports of all the Agency's constituent organizations. In addition, the following reports are issued as separate reprints:

THE ADMINISTRATOR'S SUMMARY
SOCIAL SECURITY ADMINISTRATION
PUBLIC HEALTH SERVICE
OFFICE OF EDUCATION
FOOD AND DRUG ADMINISTRATION
OFFICE OF VOCATIONAL REHABILITATION
BUREAU OF EMPLOYEES' COMPENSATION
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FEDERAL SECURITY AGENCY

OSCAR R. EWING, *Administrator*

OFFICE OF EDUCATION

EARL JAMES McGRATH, *Commissioner*

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Associate Commissioner of Education, EDWIN H. MINER.

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Director, Division of Elementary Education, BESS GOODYKOONTZ.

Director, Division of Secondary Education, GALEN JONES.

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Director, Division of Higher Education, JOHN DALE RUSSELL.

Director, Division of School Administration, HENRY F. ALVES.

Director, Division of Auxiliary Services, RALPH M. DUNBAR (acting).

Director, Division of International Educational Relations, KENDRIC N. MARSHALL.

Letter of Transmittal

FEDERAL SECURITY AGENCY,
OFFICE OF EDUCATION,
Washington, D. C., October 31, 1949.

The Honorable OSCAR R. EWING,
Federal Security Administrator.

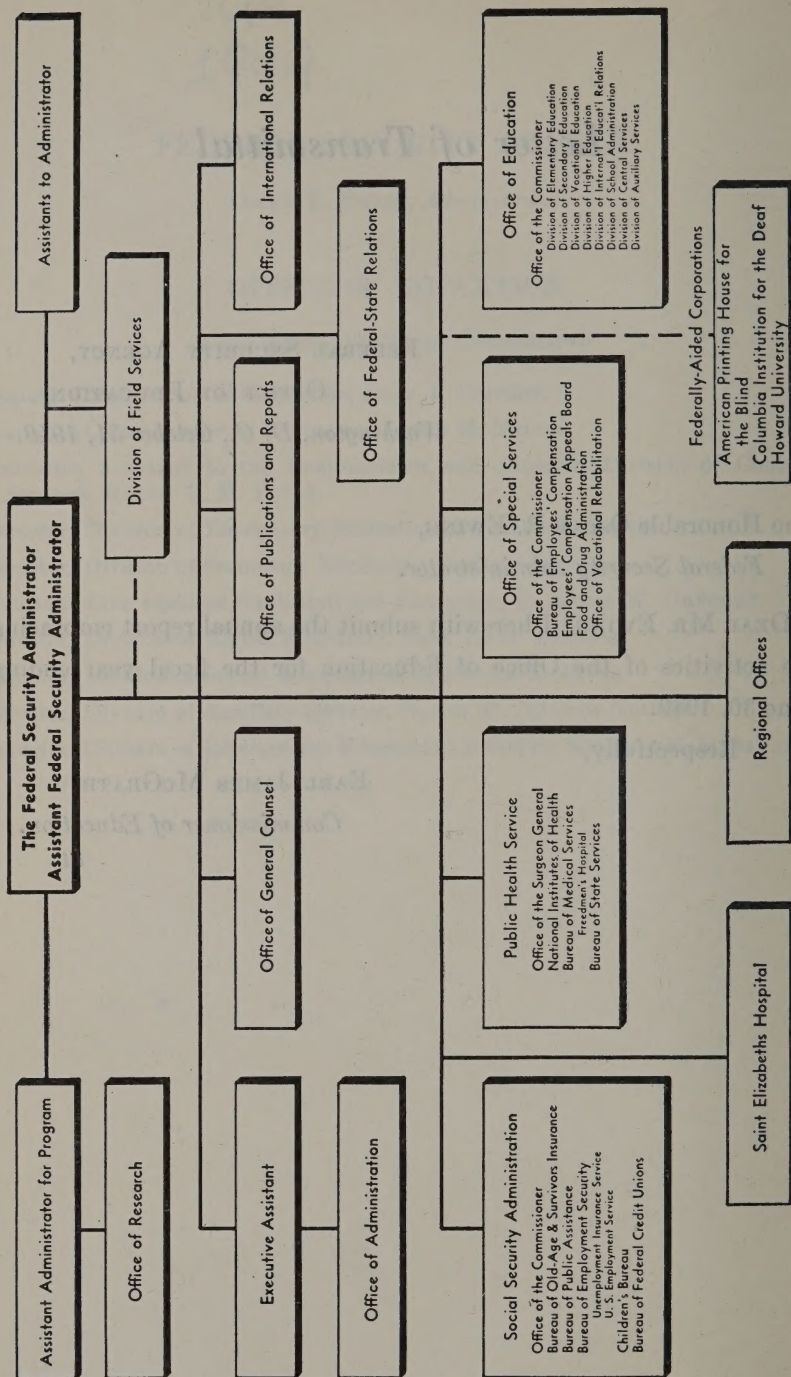
DEAR MR. EWING: I herewith submit the annual report embracing the activities of the Office of Education for the fiscal year ending June 30, 1949.

Respectfully,

EARL JAMES McGRATH,
Commissioner of Education.

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FEDERAL SECURITY AGENCY



Federal Security Agency

The Federal Security Agency was established on July 1, 1939, by Reorganization Plan No. 1 of 1939. The objective of the Plan, the President said, was to group together those agencies of the Government whose major purpose was to promote social and economic security, educational opportunity, and the health of the citizens of the Nation. Among the agencies so grouped by that Plan and by Reorganization Plan No. 2 of 1939 were the Social Security Board (including the United States Employment Service), the Office of Education, the Public Health Service, and the Federal functions of the American Printing House for the Blind.

Reorganization Plan No. 4 of 1940, effective June 30, transferred to the Agency the Food and Drug Administration, Saint Elizabeth Hospital, Freedmen's Hospital, and the Federal functions relating to Howard University and to the Columbia Institution for the Deaf.

During the war the Agency became the center around which numerous war activities were developed. In addition to other war functions, the Federal Security Administrator became Chairman of the War Manpower Commission, established in September 1942. When the Commission was abolished at the end of the war, the United States Employment Service, transferred from the Agency to the Commission on its establishment, was then transferred to the Department of Labor.

The Agency was further expanded by Reorganization Plan No. 2 of 1946. Among other things this plan, effective July 16, abolished the Social Security Board and transferred to the Administrator all the functions of the Board and of its Chairman; transferred to the Agency the Children's Bureau with all its functions except those relating to child labor; and abolished the Employees' Compensation Commission and transferred its functions to the Administrator. As of the same date, the Administrator established the Social Security Administration, comprising the program bureaus formerly in the Social Security Board and also the Children's Bureau.

Legislative enactments of June 1948 again transferred the United States Employment Service to the Agency, as of July 1, and administration of the Federal Credit Union Act, as of July 29. The Employment Service was placed in the Bureau of Employment Security of the Social Security Administration, and the Bureau of Federal Credit Unions also was placed within that Administration.

The organization of the Agency at the close of the fiscal year 1949 is shown on the accompanying chart.

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Office of Education

Commissioner's Review and Recommendations

AMERICAN EDUCATION is now in the most critical period in its history. Ironically, this crisis results in part from the realization of our ideal of universal education. Since the earliest days of the Republic widespread dissemination of knowledge among the people has been recognized as the only sure foundation of a prosperous and impregnable democracy. George Washington clearly set forth the direct relation between the well-being of society and the general education of its citizens when he said: "In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened."¹

Our people generally have held the firm conviction that it is in the interest both of the individual and of society that all youth regardless of race, color, sex, social or political conviction, or economic status should have equality of educational opportunity. This has not been a popular view in other countries. In fact, thoughtful men through the ages, and some in our own country today, have been concerned about the future of a nation which attempts to provide education on any such grand scale. Renan, the distinguished French scholar, for example, some years ago put the case against universal education most pointedly when he said, "Countries which, like the United States, have set up a considerable popular instruction without any serious higher education, will long have to expiate their error by their intellectual mediocrity, the vulgarity of their manners, their superficial spirit, their failure in general intelligence."

The vast majority of our people take a contrary view. They con

¹ Farewell Address, Sept. 17, 1796. (Writings, XIII, p. 309, Ford ed. New York and London, 1892.)

sider equal educational opportunity the birthright of every child. Contrary to Renan, they would not limit elementary and secondary education because the higher educational opportunities are inadequate; they would rather extend educational opportunity at all levels to as many as can profit from it. This recognition of the importance of education combined with the rapid rise in the birthrate is, however, the root of many of the current difficulties in education in the United States. Devoted though we are to the conception of equal educational opportunity for all, we have not yet faced realistically the practical consequences of this philosophy—the cost in terms of teachers, buildings, textbooks—dollars and cents.

As Commissioner of Education I feel that I should be remiss in my duty if I did not vigorously draw the attention of the American public to the present inadequacies in our educational system. Unless removed they will prevent the realization of our national educational ideals. Our school system is inadequately staffed and housed. The present shortages of teachers, of buildings, and of instructional facilities are acute. They will become more serious in the immediate years ahead.

Teacher Shortage

There were in 1948-49 approximately 28,000,000 children enrolled in the elementary and secondary schools. A startlingly rapid increase in this number has already begun. By 1960, the number of children enrolled in elementary and secondary schools will be about 37,000,000 with the most rapid increases occurring in the 3 school years beginning in 1952, 1953, and 1954. The available teachers today fall far short of the number needed even to staff the classes assembling in the fall of 1949. This shortage exists largely among elementary teachers. In many communities the shortage of teachers has resulted in classes of more than 50 children. In others education has been curtailed by dividing the school day into two sessions, one group of students attending in the morning and another in the afternoon.

Thousands of classes are taught by teachers who hold only emergency or temporary certificates. Though such persons deserve commendation for their help in these critical times, a permanent, efficiently operating educational program cannot be developed on the basis of a temporary teaching staff. Many of the present teachers had been out of service for some years and had lost some professional skills through disuse. Some quite naturally are not so highly motivated as younger men and women who are planning to spend their lives in the profession. Indeed many of the older teachers are now

serving only out of a sense of duty which was born of the war emergency, and which may not serve to retain them in the profession much longer.

The present shortage of teachers will become more serious. Nothing can now be done to forestall the emergent crisis which will mean educational privation for many of our children. We have already delayed beyond the point where even the most drastic steps can quickly relieve the shortage of teachers in the elementary schools. Those who will graduate from the colleges and universities in the next 4 or 5 years will hardly replace the normal number of vacancies caused by retirement, death, marriage, and change of occupation. During the next academic year approximately 25,000 elementary school teachers will be graduated; at least 100,000 will be needed (30,000 for the increased enrollment, 60,000 for normal annual turnover, and 10,000 to replace a reasonable fraction of the teachers now holding emergency certificates.) For the years ahead, 30,000 new teachers a year will be needed to accommodate the increase beyond normal enrollment if the school program is to be maintained at its present level of efficiency—a level that in spite of the best efforts of educators is not high enough to justify a spirit of complacency.

One of the most important factors in the present short supply of teachers is the relatively low salary they receive in many communities. There has been some improvement in teachers' salaries in a number of communities, but the general average is still too low. Is it surprising that the profession of school teaching should not attract young men and women in sufficient numbers when the 4 years of additional education required for initial employment results in a beginning salary only slightly above (and during the war years often below) that of high-school graduates who enter industry or commerce?

Salary is not the only feature of academic life that attracts and holds the best minds and the most inspiring personalities. The many men and women who returned to teaching voluntarily during and after the war with a considerably smaller salary demonstrates that to many there are greater satisfactions than financial gain. Yet it is true that able persons continue to leave teaching because of financial need.

Moreover, there is no reason why teachers, who are as able and devoted to their work as the members of other professions, should live from hand to mouth while others enjoy financial security. The corroding effect of financial insecurity on morale and on membership in the teaching profession cannot be calculated mathematically, but those who know the profession do not doubt the fact. If the staffs of the elementary and secondary schools, and of the colleges and universities, too, are to be composed of able and conscientious men and women, salaries must be raised considerably. Until the economic rewards

for those who choose teaching as a life work are larger there is little likelihood in the visible future that the supply of well-prepared, enthusiastic, and devoted teachers will be adequate to meet the needs of the entire Nation. To take a Micawber-like attitude that somehow everything will turn out all right in the present crisis in our schools is to play cavalierly with the destinies of thousands of American youth. Only by facing this problem realistically now can the shortage of qualified teachers be materially reduced 3, 4, or 5 years hence. Only thus can the right of all American children to a basic education for their own personal advantages and for the responsibilities of citizenship be guaranteed.

Though income is a significant factor in recruiting and holding teachers in the profession, it is by no means the only factor. The status which the teacher occupies in the community, the regard of the public generally for the work of the schools, the opportunity to live a normal life unshackled by local conventions and prejudices, and a multitude of other psychological and social factors are no less important. In too many communities teachers are required to adapt their own tastes, conduct, and social activities to members of the school board or other prominent citizens. They are often expected to lead an abnormally restrained and inhibited life unmatched in the lives of the parents who impose such restrictions. The attitudes of suspicion concerning the teacher's political and social views, increasingly common in recent years, likewise deprive the teaching guild of some of its most alert and enterprising minds. These and other more subtle influences unquestionably make teaching unattractive to many talented young men and women.

The Unmet Need for Facts

We need more reliable evidence than we now have as to why some young people are attracted to teaching while others are driven from it. We do not know what makes some highly successful as teachers and others dismal failures. It is of the utmost importance to the future of education in this country that this evidence be gathered and made generally available not only to the members of the profession themselves but to the public at large.

A study of the teacher in America is needed now. A considerable body of pertinent information on the subject already exists. Much of it, however, relates to such matters as teachers' salaries, their ages, the amount of training they have had, insurance and annuity provisions in various school systems, and to other of the more obvious aspects of the teacher's life and work. All these items of information can be used to advantage in determining the status and drawing

power of the teaching profession. But there are others of greater significance which deserve careful study.

An adequate analysis of teaching will require the cooperative efforts of educators, social psychologists, economists, sociologists, psychiatrists, anthropologists, political scientists, and other specialists in human relations. Such a group should attempt to identify and study the intellectual and emotional characteristics of successful and unsuccessful teachers and the forces which determine the conditions of teaching in the United States. Such an investigation should seek answers to the following questions: What factors in the work of the teacher make the profession unappealing to many young people today? What personality traits make for inspiring and effective teaching? Can these traits be cultivated or are they essentially inborn? To the extent that the latter is true, what means should be taken to identify at an early age persons having such traits and how can they then be attracted into the profession? What attitudes in the community outside the school prevent the recruitment of the best qualified candidates and drive teachers out of the profession? What influence do standard salary scales and permanent tenure have on the retention of highly competent and grossly incompetent teachers? What steps are taken to acquaint high-school and college youth with the characteristics of the teaching profession? This meager but representative list of questions to which satisfactory answers are not available should make abundantly clear the need for thorough study of the teacher in America. Plans for such a study have for some time been in the process of development in the Office of Education. Either public or private funds should be made available soon to make this investigation possible to the end that the profession may attract and keep the thousands of inspired and inspiring teachers so urgently needed in our schools.

School Building Needs

The present critical shortage of teachers is matched by an arresting lack of schoolhouses. If all the needed teachers were available today many would have no rooms in which to conduct their classes; that is, rooms fit for school use. The shortage of school buildings is in part the result of the depression of the thirties and in part the result of restrictions on construction during the war years. From 1930 to 1940 many communities found it difficult if not impossible to finance school construction. They waited for a more prosperous day. But when money was available, building materials were not. As a consequence many children must attend classes conducted in obsolete, insanitary, and frequently dangerously dilapidated structures. And even many

of the buildings which are physically sound are antiquated in terms of the functions of modern education. Some teachers in the school year 1948-49 are conducting their classes in church basements, factories, stores, and other unusual locations. These emergency efforts to provide space where our children can be educated are laudable. They show again our ability to carry on in the face of difficulties. But the fact that such measures are necessary is a reflection upon our ability to foresee the educational needs of the youth of the United States and to provide modern schoolhouses built on plans that are educationally sound.

How serious is the shortage of schools? Facts have been presented to show that the school population will increase roughly at the rate of at least three-quarters of a million children each year at least until 1958. If we assume a class of 30 to be a suitable instructional unit, then the number of new classrooms required each year to accommodate these new enrollments until the end of this period will be approximately 25,000. But these figures neglect entirely the fact that many existing schools are antiquated and dangerous to the health and safety of children. Education has changed basically since they were built 30, 40, or 50 years ago. The curriculum and the teaching methods of today require a school composed of something more than four walls, a blackboard, and desks.

The school is now a living community in which children of varied ages engage in a great variety of activities, some of which now considered essential by competent authorities were unknown only a few years ago. These activities can be carried on effectively only in buildings designed specifically for educational purposes—and for the purposes of education in 1949-50, not in 1899 or even in 1929. In addition, therefore, to the many school buildings that must be constructed immediately to accommodate the greatly increased enrollments resulting from the high birth rate of recent years, thousands of new classrooms are needed to replace those which are now a menace to the health and safety of children, or unsuitable for the purposes of modern education.

The Facts Must Be Gathered

The number and types of new buildings needed are not known with accuracy. Nowhere has such information been systematically and completely gathered. It can be secured only with the full cooperation of all the States and their constituent communities, for the total building program is dependent in part on the organization of education within the several States and smaller governmental units. For many years it has been recognized that many school districts are too small

and too poor to maintain an adequate educational program. The little red one-teacher school, to be sure, served a high purpose in the history of this country. Many men great in the Nation's councils received their early education in these buildings. The dramatic past of these structures, however, should not blind us to the fact that in many communities they now occupy the place in education equivalent to that of the horse and buggy in the field of transportation. Many larger administrative units are needed in the school system. They provide a broader tax base. They also make possible larger schools with greatly enriched and diversified offerings. These well-rounded programs are essential if all children regardless of their residence are to have approximately equal opportunity for education and the resulting social and economic benefits.

Remarkable progress has been made in the reorganization of school districts. In the State of Arkansas, for example, there were 4,600 districts in 1928. Now there are approximately 375. In Illinois the districts have been reduced from 12,000 in 1940 to 6,000 in 1949. Similar reorganization plans are being executed in other States. But there yet remain hundreds of school units too small and geographically too remote from population centers to support an adequate educational program. If the maximum use of local resources is to be made, the movement to reorganize administrative school units should proceed apace.

In attempting to determine the cost of the school building program for the entire country, plans for local reorganization must be taken into account. There is need, therefore, for a cooperative and comprehensive study of school organization and finance. Until such an investigation is made with the enthusiastic cooperation of State and local units, the sums needed to provide an adequate school plant for the entire Nation can be only roughly estimated. Sampling studies made by the Office of Education and the National Education Association indicate that the cost of building the additional school structures needed to accommodate the increased enrollments within the next 10 years and of replacing obsolescent and dilapidated buildings would amount to at least 10 billion dollars. More comprehensive studies should be begun at once. The demand is obviously so great, however, that appropriating legislative bodies need not refrain from acting until final and definite figures are available.

No alarmist state of mind is required to predict that the educational system of the country will fall into shocking disorder and ineffectiveness if steps are not taken now to secure an adequate supply of teachers and school buildings. This is a condition which no democratic social order can long condone. It contains examples of inequities to which critics of democracy like to be able to point.

Federal Action Essential

Careful students of the school system are convinced that the quality of education cannot be maintained without Federal financial support. They are certain that without such aid the deterioration in the quality of education which has already begun will accelerate. The need for Federal aid to education is clear and imperative. Without Federal aid the traditional American ideal of educational opportunity for all cannot be realized. Without it the educational birthright of an increasing proportion of our youth will be denied. The following facts compel this conclusion.

Traditionally the control of education in this country has rested with local communities and the States. In the beginning each district taxed itself for the support of schools. Later the States began to supplement local money out of general funds in an attempt to equalize local educational advantages. Though the formulas for equalization vary greatly from State to State this practice has now become almost Nation-wide. Concretely, this means that some sections of the State contribute to the support of education in other sections. This practice has been justified on the ground that all children should have equal educational opportunity not only for their own good, but most particularly because it is in the general interest to give all children the fullest possible education for the rights and the responsibilities of citizenship. These plans of equalization have helped to reduce the differences in the character and the quality of education within the school districts of the several States.

Within even the wealthiest States, however, wide educational differences still exist. These same differences also exist among the several States. They stem largely from two economic and social factors. The wealth of the several States varies enormously and the States which have the least money have proportionately the most children.

It is essential that Federal funds be supplied to reduce the present inequalities. A formula should be devised for the distribution of Federal funds which will take into consideration both the relative ability of the various States to pay for education and the differences in their birth rates. The largest proportion of funds so distributed should of course go to the poorer States.

In the past, the practice has been to make grants for specific educational purposes. It has not been the policy to appropriate lump sums to be used by States or institutions for such purposes as seemed to them most pressing and desirable. Moreover, Federal financial assistance for specific purposes has usually been made available only on the condition that the receiving agency match or supplement it. There are well-known arguments for this type of joint support of education.

The practice of giving Federal support to specific types of education should undoubtedly be continued for some years to come. Indeed categorical grants-in-aid for education may always be necessary as an initial stimulus to the development of needed educational programs within the States and communities. It would seem desirable, however, to balance these categorical grants by making other Federal grants in lump sums to be used by the States in support of such education as they consider essential. This plan would tend to preserve local initiative in the development and control of a well-balanced educational program.

For the time being, however, this ideal support of a more general character will have to be qualified by the practical needs and pressures for specific types of education. These should not prevent the passage of legislation for general Federal aid for the expenses of maintenance and operations and for school construction. In addition to these more general grants, however, support is needed at least for a period of years for several specific types of education.

A case in point is the present inadequate supply of personnel in the various health services as recently reported by the Federal Security Administrator. This report shows that many American citizens receive inadequate health service because of an insufficient supply of doctors, dentists, and nurses. A careful study of the matter would seem to indicate that two of the chief factors in preventing a larger production of properly trained practitioners in these fields, are the high cost of education to the individual, and the high cost to educational institutions in providing it. It is a well-known fact, for example, that medical education absorbs a very large percentage of the resources of those institutions which offer it. Not uncommonly the annual cost for the education of a medical student is six to eight times that of the cost of educating the average student in a college of liberal arts. Personnel and facilities in the medical schools of the country are far from adequate, and if they were raised to a proper level of efficiency very large sums would be required. Yet the health of our citizens generally requires that more doctors be produced and that they be better trained. It seems unlikely, however, that rapid progress can be made in this direction unless the resources of the institutions are increased quickly. In this instance it would seem desirable to make an exception to the rule that the Federal Government make only general grants to the various States. If the objective of better public health services is to be achieved, it appears necessary to make grants directly to the appropriate educational institutions and to provide scholarships for capable but needy students who desire to become physicians.

Another exception to the rule of making more general grants should

be made at the present time in the form of a large scholarship program for American youth who graduate from secondary schools and who possess the ability to profit by higher education but do not have the financial means to gain it. The report of the President's Commission on Higher Education recently issued showed that there are hundreds of thousands of young people in the United States of high scholastic ability who discontinue their education in the secondary school because they, or their parents, cannot afford advanced education.

Most colleges and universities have scholarship funds for worthy and able students. But the fund is normally so small that only a few students can be helped. Moreover, aid is often available only to students who have already shown their capacity to profit by college education through the successful completion of at least one college year. The consequence of this practice is that many young men and women of superior ability who cannot finance the first year of higher education never enter college at all.

President Truman, in a speech delivered at Rollins College on March 8, 1949, stated:

If our country is to retain its freedom in a world of conflicting political philosophies, we must take steps to assure that every American youth shall receive the highest level of training by which he can profit. A soundly conceived Federal scholarship program in our colleges and universities is a necessary step in attaining this goal. Education has been defined as a bulwark against the acids of fascism and communism. Neither of these totalitarian forms of government can survive examination by educated men and women—men and women free to search for the truth and imbued with the principles of liberty set forth in the preamble to the Constitution of the United States—the greatest document of government, in my opinion, that has ever been written by the hand of man.

The report of the President's Commission showed also that the ability of the various States to support higher education varied considerably. Some of the States with the smallest annual income have the largest number of young people capable of profiting from higher education. It is in the interest of the national welfare that these young people have an opportunity to continue their education beyond the high school. If this is to be accomplished, some form of Federal scholarship program is absolutely essential.

Education for International Relations

Thirty years ago, in the aftermath of the first World War, H. G. Wells observed, "Human history becomes more and more a race between education and catastrophe."² The onset of the Atomic Age has now given disquieting dimensions to the prescient insight of Mr. Wells. There is a feverish and ubiquitous building of instruments

² Outline of History, New York, Collier & Son Co., 4th ed. rev. 1925, vol. iv, p. 1305.

of war—military planes, ships, and bombs, and recruitment of armies. Yet there is hope among the people everywhere that another conflict which could wipe out civilization may yet be avoided. And there is widespread agreement that education is the best and perhaps the only means of preparing the peoples of the world to live together in harmony and prosperity.

Normally the usual processes of education should suffice to ensure peace and security. But under present conditions these efforts must be supplemented by direct, specific instruction for international understanding. Basic general education should provide a knowledge of the physical universe and the human beings who inhabit it. It should also cultivate the habit of looking for relevant facts and applying analytical thought to current problems. Through a study of man's nature, his persistent desires and life purposes, and the different manner in which these human characteristics are reflected in various national and racial customs, the educated person should gain a sympathetic understanding of cultures which differ from his own. Normally this program of general education would be enough to guarantee international understanding and peace. For the minds and the hearts of men would be opened to the influence of other peoples and other cultures different from their own. They would possess the judgment and the integrity and the sympathetic understanding to live in harmony and to work cooperatively with the people of other countries in what may be the last opportunity to preserve peace and good will among men.

But this indirect route to the goal of amity among nations is too slow. Direct attention by educators is indicated. The unstable international situation requires that a specialized program dealing with problems of international understanding and peace be made an integral part of the work of the schools and of informal educational agencies. It is urgently necessary that the people of all nations come to know something of their fellow men in other areas of the globe. Only through an intelligent and sympathetic understanding of the customs, the ambitions, the art, and the culture of other peoples can the various nationality groups hope to live together in harmony in this ever contracting world. A vigorous campaign of education is therefore needed, focused directly on problems of international understanding. The President of the United States in his letter appointing the members of the Commission on Higher Education recognized the need for such education. He referred specifically to the urgency for considering problems of international understanding and he said he hoped the Commission would especially consider "the adequacy of curricula, particularly in the fields of international affairs and social understanding."

Many good beginnings have already been made in the field of international education. One of the specialized agencies of the United Nations organization, the United Nations Educational, Scientific, and Cultural Organization, is concerned with the work of educational agencies.

The United States National Commission for UNESCO composed of one hundred distinguished educators, scientists, and other persons engaged in cultural activities within its brief existence of 3 years has already developed a vigorous and imaginative program. It has enlisted the cooperation of many cultural organizations in the crucial task of educating our people about the purposes of UNESCO and the part which they can play in it. Nevertheless much yet remains to be done in making Americans conscious of the work of this important agency. Even those who have a general understanding of its program often fail to exhibit an enthusiasm for its work commensurate with its potential value in maintaining world peace.

The maintenance of harmonious relations among the nations is a task worthy of the efforts of all educators. All the various professional associations of educators from the elementary schools through the colleges and universities ought to devote a significant part of their annual conferences to a discussion of the ways and means by which they can assist in achieving the objectives of UNESCO. Elementary school teachers, administrative officers, supervisors of instruction, high-school teachers, principals, directors of instruction, college professors of history, psychology, philosophy, art, literature, and other subjects, counselors, college deans, presidents of colleges and universities, and all others concerned with education—all these have a moral responsibility to become acquainted with UNESCO and to advance its program.

It is encouraging to observe that many efforts are already being made to supplement the formal programs of educational institutions in the advancement of international understanding. The various programs for the exchange of persons fall in this category. One of the most successful of these was established through the efforts of Senator William Fulbright. Drawing upon his experience as a Rhodes Scholar at Oxford University, Senator Fulbright saw the advantage of having the citizens of one nation live in close contact with those of another. The Fulbright Bill passed by the Congress and approved by the President on August 1, 1946, makes it possible for a considerable number of foreign students, teachers, and research workers to spend varying amounts of time in this country. Similar arrangements provide for residence of Americans in other countries. Through the United States Department of Defense exchanges of persons between the United States and Germany and Austria have been arranged and

similar plans are now being prepared for the exchange of Japanese nationals. The Institute of International Education in New York has a well-developed program for the exchange of students from other countries to the colleges and universities of the United States. The Office of Education of the Federal Security Agency in cooperation with national educational organizations has for several years arranged for the exchange of teachers in foreign countries, especially the United Kingdom, with teachers in the United States. Each British teacher takes the place of an American in one of our school systems and vice versa. The success of these teacher exchanges is clearly indicated by the fact that the demand in the school systems of this country for British teachers far exceeds the supply.

The long-run effect of these programs is already perceptible in the good will and the improved understanding in the communities in which exchange persons have lived and worked. One aspect of these programs of exchange needs study. It can best be presented in the question, "What are the purposes of an exchange program and what kinds of persons are likely to achieve these purposes?" There are two obvious objectives of exchanges. The first has to do with providing another nation with highly skilled technical personnel, such as engineers, research workers, or scholars. Countries like Germany, Italy, and Japan, many of whose educators, scientists, and others engaged in cultural activities were lost, or were not trained in adequate supply during the war years, or who lost touch with the learned world through isolation, need the assistance of technical personnel from this and from other countries. Only through such assistance can their economy and social organization be restored to a sound and self-sustaining basis.

Then there are other nations whose standards of living have never been high, whose natural and human resources have not been adequately developed, and whose skilled workers, scholars and scientists do not exist in sufficient numbers to undertake a program of national development. In the development of their own resources President Truman offered to these nations the knowledge and the skills of Americans. Said he,

We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. . . . For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people. . . . The United States is pre-eminent among nations in the development of industrial and scientific techniques. . . . I believe that we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in cooperation with other nations, we should foster capital investment in areas needing development.³

³ Inaugural Address of Harry S. Truman, Jan. 20, 1949. (p. 3, Senate Document No. 5, 81st Cong., 1st Sess. Fourth.)

The exchange of such technical personnel will help greatly in maintaining international peace by reducing the economic and social differences between the "have" and the "have-not" nations, and by creating good will abroad. Our institutions of higher education, the various branches of government and industry and commerce can all supply highly trained persons for such technical assistance. These persons can help other nations in improving their industrial and agricultural production and in generally upgrading the conditions of life of the people.

American educators can render an even more lasting service by assisting foreign school systems in establishing programs for the recruitment and training of their own professional and technical people. Thus the technical leadership now supplied from beyond their own borders can eventually be provided through their own educational institutions. The educational institutions of the United States can make an enormous contribution to this program of technical help to other nations through the exchange of persons and also through advisory commissions. These activities will create much good will and foster international understanding.

A second purpose of the exchange program is somewhat more direct in its expression. To be sure, the interchange of technical personnel will have some incidental effect on international understanding, but the brief and preoccupied sojourn of specialists or technicians will not ordinarily supply opportunity for doing the two-way job of cultural ambassadors. The interpretation of our culture to the members of the communities in which they happen to reside, and the acquiring of an adequate understanding of the customs, thoughts, and ideals of another people, are processes requiring exceptional abilities and longer residence, as well as relative freedom from the preoccupations of a technical assignment. Prolonged and leisurely contact between the citizens of one nation and those of another—citizens selected because of their interest in international understanding—is an excellent means of breaking down the cultural barriers which separate peoples and sometimes engender hostile attitudes. To be effective ambassadors of good will, exchange persons must live intimately with the people in the country of their sojourn. Understanding and sympathy are human qualities, cultivated best in the day-to-day contacts of life.

But contact does not always breed understanding. What types of persons, then, are likely to make the greatest contribution to international understanding by living in another country? My own conviction is that teachers, students, businessmen, journalists, members of labor organizations, and others in the ordinary walks of life would best carry out the mission of international understanding. In the

development of a more nearly adequate exchange program, and in the selection of persons to be cultural ambassadors, there ought not to be an inordinate emphasis upon scholarly accomplishments. It is questionable whether research scholars are better qualified to achieve this second purpose of the exchange program than are the ordinary teachers in our lower schools, our undergraduate students, and our typical men of business, commerce, industry, labor, and the professions. In any event the latter can certainly play a valuable part in an exchange program. A similar comment concerning the too-narrow selection of exchange persons appears in the February 7, 1949, report of the United States Advisory Commission on International Exchange:

In reaching our conclusion as to the general effectiveness of the program, we find ourselves in agreement as to one defect. In our judgment there is great need for broadening the scope of the exchange of persons program. The culture of any nation is a composite of all activities of all of its people. Recognition has been given to the scientific and technical fields and to exchanges of academic personnel and leaders in the professions, but insufficient emphasis has been placed on certain other groups—ministers, authors, musicians, businessmen, and others whose participation is necessary to a balanced program of interchange.

Take the secondary school teacher, for example. Such a person, under the plan now in operation between England and the United States, moves into a position vacated for one year by an American teacher. The visitor has a regular teaching assignment which results in daily contact with the children of the community and with teachers and administrative officers in the school. The visiting teacher sees these people, so to speak, in their native habitat under normal conditions exhibiting their natural reactions. She lives in an average home in the community and witnesses at close range the normal activities of American family life with its stresses and strains, its joys and sorrows, its good will, its provincialism, and its prejudices. The members of the school community and of the home likewise have an opportunity to observe the behavior and the ideas of the visitor. Through meetings in the church, the Rotary Club, the circus, the picnic, and other social activities the teacher sees America as it really is, not inevitably out of context as it often appears in the movies, the novel, the lecture hall, or the textbook.

In Britain the American exchange teacher has the same experience. And most important of all, the children who sit in the classroom of such a teacher come to realize that a foreigner is fundamentally quite like us, having likes and dislikes, ambitions and loyalties, a desire to achieve the basic human satisfactions, and above all a common sense of decency, of honesty, of integrity, and of good will toward those who do not erect barriers against its expression. In short, students, at the most impressionable ages, come to realize that this visitor from a foreign land is like most of our fellow countrymen, a pretty good

person after all, and that any basic differences that may exist between our two peoples must arise from misunderstanding and not from malice. The same can be said for students, working men, and business executives who would spend a year in a foreign community. This in my judgment is the primary purpose of international exchanges.

A careful review of the purposes of the exchange programs and an appraisal of the accomplishments to date would, it seems to me, be very helpful in clarifying future policies and practices. Such an evaluation should take into consideration the distinctions between different types of exchange programs. In the case of technical advice and assistance, of course, the scholarly standing and accomplishments of those who are to be sent abroad are of paramount importance, and an interest in the broad problem of international understanding of secondary consideration.

A distinction should be made between the research scholar, on the one hand, who is going abroad to advise with a foreign government or private agency upon a specific technical problem, and the university research scholar, on the other hand, who has no such assignment but wishes merely to complete his own research which may have no relation whatever to any of the technical problems in the visited country. In the former instance, the direct contribution to international understanding may not be expected to be great, but the technical advice provided justifies the exchange. In the latter, it should be the chief objective. There seems little justification, therefore, for using funds set aside to promote international understanding and peace to advance personal research, however meritorious the research may in itself be. A systematic and careful evaluation of these and other aspects of the international exchange programs would be useful in determining future policies with regard to this important activity.

Declaration of Human Rights

No report on the part which education can play in creating international understanding and peace would be complete without reference to the Declaration of Human Rights prepared by the United Nations Commission on Human Rights. The Declaration, which embodies the highest ideals of all people of good will throughout the world, ranks in importance with the French Declaration of the Rights of Men and of Citizens, the British Magna Carta, and the United States Declaration of Independence and The Bill of Rights. At present this document carries only the unofficial endorsement of the participating nations, but a committee is now at work upon a covenant which will embrace most of the provisions of the Declaration. This covenant upon its completion will be submitted to the powers signatory to the

Declaration for formal official approval. Persons of every creed, color, nationality, race, and condition of life, interested in lifting men everywhere to a higher level of human aspiration and a richer spiritual and material life will wish to work energetically not only for the adoption of the covenant, but more important, for the carrying out of its implications in the everyday activities of all our people.

All Americans should read and study the Declaration of Human Rights, and discuss its implication with their fellow citizens. Particularly the schoolmen of the Nation should consider ways in which the educational program, from the elementary school through the university, can teach the principles of human conduct and relations set forth in this monumental statement. The teachers of the Nation should know its provisions by heart and they should attempt to embody its precepts in their tasks, not only in the formal activities of the classroom, but in all the relations of one human being to another throughout the school and its environment. The distribution of information about the Declaration of Human Rights and the organization of activities leading to its adoption and implementation is in the hands of the United States National Commission for UNESCO. Educators and other citizens as well will wish to cooperate actively with the National Commission in acquainting our people with the Declaration and in working for the practical realization of its recommendations in the lives of all Americans.

Communism and the Schools

In the present postwar period, as after World War I, there is a noticeable increase in internal tensions of the Nation. One expression of these tensions is seen in the widespread concern over communism. Many citizens feel, for example, that there is danger that communistic influences may operate through our educational systems. This whole problem calls for a quality of careful thinking and considered action which it is the special responsibility of schools and colleges to supply.

Recent months have seen the discharge of three members of the faculty of a large State university for reasons of Communist Party membership. The American Association of University Professors is, at this writing, investigating the situation. The members of the National Education Association in formal meeting in July of 1949 in Boston resolved that persons who are members of the Communist Party should not be permitted to teach in the schools, and that they should be excluded from membership in the Association. In the spring of 1949 the Educational Policies Commission of the National Education Association issued a report which deserves careful study, both by members of the teaching profession and by the public at large.

Entitled, "American Education and International Tensions," the report analyzes the cross-currents of world conflicts of ideology, their implications for education, and the consequent steps to be taken in American schools and colleges. The Commission makes four specific recommendations:

1. Young citizens should have an opportunity to learn about the principles and practices of totalitarianism, including those represented by the Soviet Union and by the Communist Party in the United States.

2. Teaching about communism or any other form of dictatorship does not mean advocacy of these doctrines. Such advocacy should not be permitted in American schools.

3. The schools should continue with vigor their programs for giving young citizens a clear understanding of the principles of the American way of life and a desire to make these principles prevail in their own lives and in the life of their country.

4. Members of the Communist Party of the United States should not be employed as teachers.

The position of the Commission with respect to the exclusion of the Communists from teaching positions in the public schools is sound. Under the laws of all States children are required to attend school until a designated age. In addition to learning a certain body of fact about the world in which they live, the presumption is that they are sent to school to learn how to use their intellectual faculties, that is, how to think critically and logically. In short, the teacher even in the lower grades is expected to cultivate those habits of mind and of attitude which predispose the growing citizen to pursue the truth. Children are not sent to school to be indoctrinated with a closed system of philosophy or the political views of the teacher. To the extent that education becomes dogmatic indoctrination it ceases to be education.

The Communist embraces and teaches dogma. He is, by his Party membership and sympathy, committed to a closed system of thought. He has given his allegiance to a predetermined set of principles which are not to be evaluated in the light of evidence or examined on the basis of results. He is not free to serve the truth as the evidence may uncover that truth. He has therefore surrendered his right to teach in a nation of free people. In this, the Communist is not alone, of course; but the fact that there are those others whose commitments prevent them in some measure from pursuing the truth does not justify the retention of Communists. Instead, it raises a much more difficult question: How can American education guard itself against domination by any and all forms of dogmatic intolerance, and at the same time safeguard the traditional rights of academic freedom and freedom of speech? This much appears clear: While our constitutional guarantees

rightly defend the privilege of every man to speak his mind out freely, regardless of the truth or error of his utterance, trusting to the sifting processes of free debate and the integrity of an educated people, there is no justification, either in principle or in practice, for knowingly employing as teachers of our youth those whose commitments are contrary to the foundation principles of freedom itself.

The Real Dangers

Communist influence, if it began to find expression in our schools and colleges, would be inimical to the development of the minds and characters of American youth on whom the future depends. But in our efforts to avoid one danger, we must not embrace another. The present period of hysterical concern must not betray us into adopting measures of censorship and control which are the essence of the police state. Some persons have the unfortunate tendency to label as communistic every idea which they happen to dislike. This form of intimidation through vilification is just as objectionable and just as stultifying as the closed-mindedness of the Communist. Under no circumstances must we permit the constructive effort to keep the schools free of Communist domination to lead, by almost imperceptible steps, to the establishing of thought-control and the limitation of academic freedom in our schools and colleges.

There are many citizens, many of whom vigorously deplore communism, who have that relatively rare and highly desirable quality of critical loyalty which enables them to support the nation and social institutions which at the same time they are working to improve. To create a more perfect union . . . to promote the general welfare . . . to secure the blessings of liberty . . . are fundamental American objectives. No person of sober thought could suggest that these ideals have as yet been fully realized. The teacher who is free to aid students in analyzing both the strengths and the weaknesses of American life is in a position to train the kind of leadership which will make tomorrow better than today. Any attempted intimidation of the teacher, any effort to break the independent spirit or quiet the inquiring mind, is more than a violation of academic freedom: it is a betrayal of American youth, and therefore of America's future. It is one thing for a teacher to disqualify himself by giving allegiance to a closed system of dogma; it is quite another thing for the American public to give way to a form of mass hysteria and surrender its own free institutions to the emboldened forces of reaction. Unless the schools are kept free, education can become the tool of a controlling class, as it was in the fascist countries of Europe under Hitler and

Mussolini. When the dissident opinion of minority groups or individuals is killed or suppressed, the pursuit of truth is stopped and the minds of children are perverted.

As we fight communism let us beware lest we create our own kind of police state. If, in our efforts to defeat totalitarianism, we become totalitarian, we have lost the battle. Consider some of the features of totalitarianism which are most repugnant to democratic values: the suppression or liquidation of dissident groups; imprisonment for political opinions; spying and informing on private citizens; censorship of newspapers, radio, books, education; abrogation of the rights of free speech and free assembly; arbitrary adherence, either voluntary or involuntary, to a dogmatic party line. In the name of democratic liberty, with its necessary responsibility, American educators and the American public must avoid these evils. The nonconformist teacher must not be attacked and his character besmirched merely because he differs from others. Teachers rightly repudiating the Communist Party line must not be subjected to the line of some other party or of a pressure group or class or race. A free society must be made up of free men. There is no other way.

And since there is no short cut to democracy and freedom, but only a continuing, never-remitting struggle for the truth that makes us free, the teaching profession must be alert to every infringement of the traditional rights of teachers under a democratic form of government. Defeatism born of fear, conformity which masks frustration, and allegiance blindly and uncritically given to whatever ideal or objective have no place in American education. Cool examination by dispassionate judgment marks these degradations of the human spirit as the basic enemies of democratic life. The teaching profession has a great responsibility to practice and to perpetuate the best traditions of the American heritage of freedom. This is an obligation not easily or pleasantly discharged, but it is one which will bring rich rewards in the thanks of our people when a calmer day makes detached judgment possible.

A brief review of educational developments in the United States and of the relationship of the activities of the Office of Education to these developments is presented in the pages that follow.



Research and Statistics

EDUCATIONAL RESEARCH METHODS

Uniform Records

The collection and publication of reliable information on the "condition and progress of education in the several States and Territories" requires uniform basic records. Uniformity in turn demands the understanding and acceptance, by the various compiling agencies and reporting officials, of a standard set of definitions of terms such as "school" and "capital outlay." Because of the central importance of records, the Office of Education has for 40 years been vitally interested in the improvement of reporting systems.

During the year, the Office worked actively with the Michigan State Association of School Business Officials, with the newly organized New York State Association of School Business Officials, and with the Research Committee on School Accounting of the National Association of School Business Officials (United States and Canada). The Office cooperated with this Research Committee in revising the Manual of Public School Accounting.

Attitude, Achievement, and Aptitude Measurement

The measurement of attitudes of pupils in various fields (such as mental hygiene, current affairs, and pupil-teacher relations) has been fostered on the national level by the Purdue Opinion Panel. Increasing use of the measurement of attitudes is evidenced in social studies classes, and more attention is being paid in general to the attitudes of students about democratic practices. The Office of Education, for example, has issued checklists for students and faculty on democratic attitudes, for experimental class use.

The study of personality as an aspect of student adjustment has expanded greatly. A larger number of tests have been offered for use, especially tests which encourage the unconscious and indirect expression of students' motives and reaction patterns.

Achievement measurement and evaluation are advancing through the wider use of questions which emphasize understanding and problem-solving ability, instead of merely factual information. Wider application has also been made of observation as a technique of measurement.

Aptitude measurement in the schools has received significant impetus from the successful work in the area by the armed forces.

Several aptitude test batteries have been evolved, each of which measures several different aspects of intelligence. Such multiscore instruments provide measures which are much more sensitive and therefore more helpful for pupil counseling than the single, undifferentiated score normally obtained from intelligence tests.

The measurement field, in general, has been characterized by an attempt to get away from isolated measurement of single aspects of the student's abilities and personality. Therefore, the emphasis has been placed on the need for a *more complete* picture of each child. Development has been in accord with the view that the child is best studied as a complex interacting whole, rather than as the simple sum of separate, isolated parts.

Coordination of Educational Research in the United States

Educational research has many needs—for staff, facilities, and financial resources—but perhaps greatest of all is the need for improved coordination of research efforts and more efficient cooperation among research agencies. Engaged in educational research at present are professors; teachers; graduate students; bureaus of educational research in the universities, in public schools, and in State departments of education; the American Council on Education; the Educational Testing Service; various educational associations (such as the National Education Association and its constituent units, the National Society for the Study of Education, the Southern Regional Educational Conference, and certain of the State educational associations); as well as the Office of Education, Federal Security Agency. The efforts of these groups are to some extent coordinated by the logic of research needs, as accounted in the periodicals and volumes reporting educational research. But too often educational research reflects merely the pressures and limitations of a personal or local situation. Student X, for example, works on a problem which he can complete “within the school year”; professor Y perforce continues to exploit his local opportunities, even though the point of diminishing returns has long been passed; bureau Z works on problems—generally administrative problems—which are peculiar to its own school system; and so on. Larger issues demanding both a broader viewpoint and greater resources remain neglected or are inadequately explored.

Two solutions seem to be shaping up in response to the need for coordination in educational research: (1) The development of larger research units; (2) development by the Office of Education of new areas of responsibility for research leadership. An example of the first type is the formation of the Educational Testing Service, which combines the educational testing activities of the American Council

on Education, the Cooperative Test Service, the College Entrance Examination Board, and the Graduate Record Office. An example of the second is the planning and encouragement of research connected with the Life Adjustment Education Program of the Office of Education. Some dozen States have appointed steering committees for encouraging experimentation in various phases of the Life Adjustment Education Program. However, the opportunities of the Office of Education in the field of coordination of research are largely untapped. Obvious avenues of development include the use of research grants to universities and research bureaus and the establishment of a clearing house for educational research.

BASIC PERIODIC STATISTICS

Since 1871 the Office of Education has collected and published basic statistical facts to show status and trends and establish the normative standards that exist in the field of public and private education. From 1871 to 1916, these statistical reports were collected annually for almost all levels of education, but because of the growth of education, many studies were thereafter put on a biennial basis.

Although the Office is required by law to collect and publish educational statistics, educational institutions and systems are not required to report to the Office except for the land-grant colleges and the administration of Federal money for vocational education. Voluntary cooperation can be obtained only if the results of such cooperation are made of real value to the cooperating institutions and school systems. This means that the published reports must give sufficient and accurate data which are useful to the respondents and as nearly current as possible. Some 75 percent or more of the institutions and school systems cooperate voluntarily. Data for the others have to be collected from secondary sources, such as State departments of education, or by personal visits.

The statistical studies, together with a statistical summary of education, constitute the Biennial Survey of Education in the United States. The summary chapter picks up the major historical trend and status tables from each of the other studies in order to present a concise overview for all education, public and private, in the United States of the following data: Number of schools (more than 200,000), enrollment (more than 28,000,000), staff (more than 1,000,000), sources of income, and purposes of expenditure (more than \$4,000,000,000) in 1945-46. In addition, the major data are given for white and Negro schools in the 17 States and the District of Columbia that have separate schools, for various types of libraries, and for any special statistical studies made during the biennium.

State School Systems

The biennial chapter, "Statistics of State School Systems, 1945-46," and the abridged study (60 items) on the same subject for 1946-47 (Circular No. 255) were published during the year. From some stand-points the report on State systems is the most important statistical report published by the Office since it deals with the American public elementary and secondary school system, in which about 82 percent of all persons attending school¹ on a full-time day basis were enrolled.

According to the most recent report published, the number of 1-room schools decreased from 265,474 in 1909-10 to 86,563 in 1945-46, and was probably below 75,000 in 1948-49. The average salary of supervisors, principals, and teachers increased from \$1,420 in 1929-30 to \$2,254 in 1946-47, and was estimated at \$2,750 for 1948-49. This is still a relatively low salary considering educational requirements for teachers, the social importance of teaching, and the rise in the cost of living. Expenditures per pupil in average daily attendance for current expenses increased from \$86.70 in 1929-30 to \$152.80 in 1946-47, and to an estimated \$185 for 1948-49.

The grand total expended by the public-school system for current expense, capital outlay, and interest for 1946-47 was \$3,420 million. The Federal Government supplied almost 3 percent; State governments, 35 percent; and county and local governments, including school districts, 62 percent of the revenue receipts for 1946-47.

The enrollment for the public-school system for 1946-47 was 23,659,158, of which 17,821,481 were in kindergarten and elementary school, and 5,837, 677 in high school (last 4 years of school system). It is estimated that in 1948-49 the enrollment in public schools was 25,667,000. (Total enrollment should not be confused with average daily attendance; the latter may be roughly computed as 85 percent of the former. Note also that these figures are for public schools only.)

City School Systems

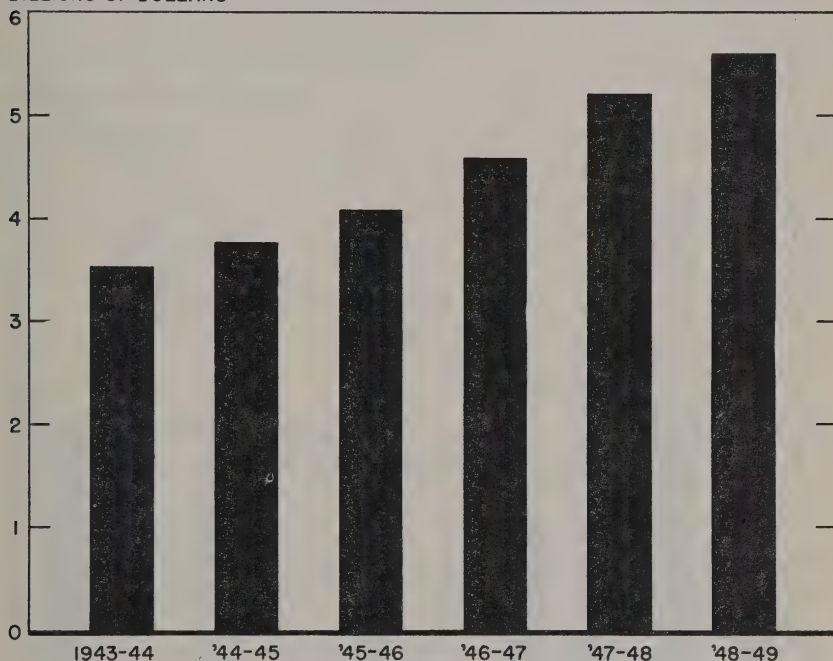
"Statistics of City School Systems, 1945-46," a chapter in the Biennial Survey of Education, and "Expenditures Per Pupil in City Schools, 1946-47," (Circular No. 245) were published in the 1949 fiscal year. The biennial chapter gives 17 items for each city of 10,000 population or more having its own system (not part of a larger school system). National figures are given on many more items by the 4 city-sized groups and for all city school systems combined. Data report 418,980 supervisors, principals, and teachers, and 11,970,043 pupils, by sex; average and aggregate attendance; expendi-

tures of \$1,061 million for salaries of supervisors, principals, teachers, and clerks; expenditures for free textbooks, supplies, and other expenses of instruction; total current expense of \$1,511 million for full-time day schools and \$50 million capital outlay for new plant and equipment. Data are also given for total bonds and other school debts outstanding totaling almost \$1,100 million. Certain data are

Chart 1.—EXPENDITURES FOR EDUCATION

(Estimated for all education, public and private)

BILLIONS OF DOLLARS



given separately for 26,891 full-time day elementary schools; for 5,870 full-time day secondary schools; for 532 systems with part-time, Americanization, night, and continuation schools; and for 173 systems with summer schools.

The city school system data are particularly useful for cities making surveys, and for cities that regularly compare themselves with a definite group of cities. They also make possible on a national and State basis comparison of urban and rural school practices.

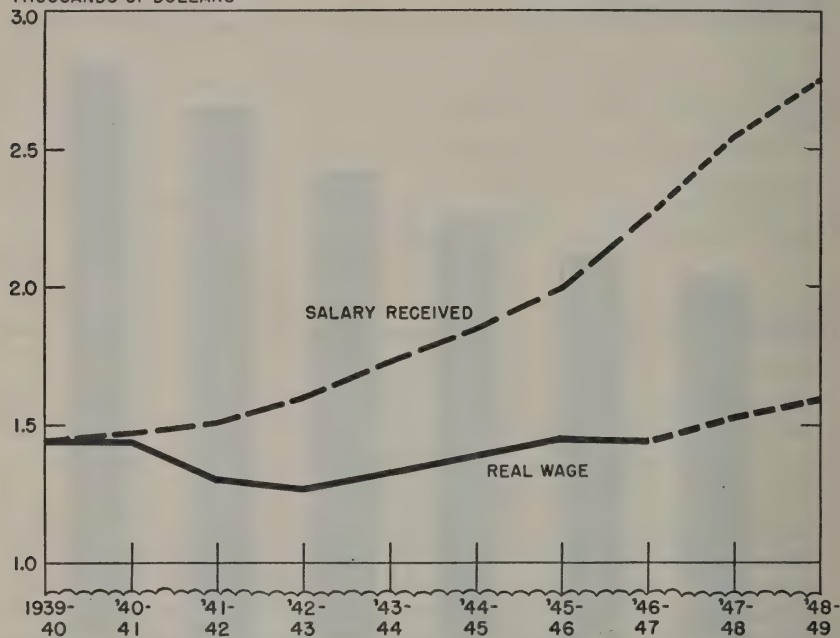
A group of 226 cities that report promptly cooperate to make the annual study of Expenditures Per Pupil in City Schools possible and keep the data comparable over a period of time.

From 1937-38 to 1946-47 the average total current expense per pupil

attending full-time day schools in all city school systems increased from \$102.89 to \$186.41. City expenditures per pupil generally exceed rural expenditures, and consequently also exceed the average for the country as a whole. Average expenditure for cities of different-sized groups ranged in 1946-47 from \$191.08 in cities of 100,000 population and more, to \$143.76 in cities under 10,000 population. There was an even wider range among individual cities within each

Chart 2.—ACTUAL SALARY AND REAL WAGE OF TEACHERS¹

THOUSANDS OF DOLLARS



¹ Real wage is actual salary adjusted to consumers' price index (Bureau of Labor Statistics). Teachers include principals, supervisors, and "other instructional staff."

group. For example, the smallest cities ranged from \$64.28 to \$267.98, with a median average expenditure of \$141.82 and a mean average expenditure of \$143.76.

Higher Education

Because there is no central organization of all institutions of higher education in the Nation, or even within most States, the Office of Education collects information directly from all institutions of higher education (1,728 in 1948-49, according to the classification used by the Office). The Office during the past year divided periodic statistics of

higher education into a number of small studies staggered throughout a biennium, as follows: Summer school enrollment (annual)—July; fall enrollment (annual)—October; earned degrees granted (annual)—June; staff, income, expenditures, property (biennial)—June.

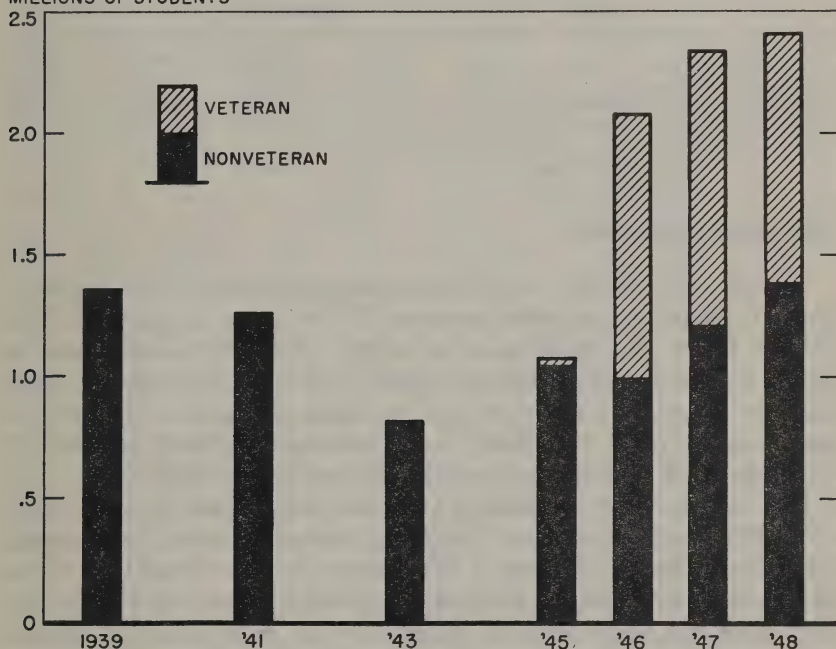
This "fractionation" of the statistical program for higher education gets more prompt and complete replies and makes possible preliminary releases of the annual studies from 6 to 8 weeks after the forms are sent out.

The decrease in fall enrollments in higher educational institutions during the war period and the increase since the war is shown in chart 3

Chart 3.—ENROLLMENT IN HIGHER EDUCATION

Fall enrollment, all types of students

MILLIONS OF STUDENTS



There were more than a million veterans in college in the fall of each of the past 3 years: 1,080,396 in 1946; 1,122,738 in 1947; and 1,021,038 in 1948.

The number of junior colleges as defined by the Office of Education increased from the 46 reporting in 1917-18 to 472 in 1947-48, and their total enrollment from 4,504 to 240,173. As defined by the American Association of Junior Colleges, there were 651 such institutions in 1948-49, compared with 663 in 1947-48.

The total staff, administrative and instructional, in all institutions of higher education in 1945-46 was 165,324, an increase of 14,344 in 2 years.

The number of degrees conferred in both 1948 and 1949 was greater than ever before because of the large number of GI students.

Including an estimated amount for the U. S. Service Academies, the total income for higher education for 1945-46 was approximately \$925 million for educational and general purposes, distributed by source (in millions) as follows: Student fees, \$214; Endowment earnings, \$90; Federal Government, \$197; State & local governments, \$256; Private gifts and grants, \$78; other sources, \$90.

Approximately \$462 million of this was received by publicly controlled and \$463 million by privately controlled institutions.

Degree	Prewar high	1947-48	1948-49
Total.....	216, 728	318, 749	422, 754
Bachelor's and first professional.....	¹ 186, 500	272, 144	366, 634
Master's and second professional.....	¹ 26, 731	42, 417	50, 827
Doctor's.....	² 3, 497	4, 188	5, 293

¹ 1939-40.

² 1941-42.

Elementary Education

No separate periodic statistical studies are made of kindergartens and of elementary schools because of the great number of these schools under the jurisdiction of 86,000 school districts. Data on enrollment in public elementary schools, given in the studies of State and city school systems, show the beginning of the upswing from the most recent low of 17,713,096 in 1943-44 to 17,821,481 in 1946-47. The estimated enrollment for 1948-49 was about 20,000,000.

The aforementioned studies give number of schools, by State (160,227); teachers, by sex (541,528); total elementary enrollment, by sex; enrollment, by grade; the number and enrollment in 1-, 2-, and 3-teacher schools for the States reporting; average and aggregate days attended, and length of school term in days; total enrollment, staff, grade enrollment, average and aggregate attendance, and length of term in schools for Negroes in the 17 States and the District of Columbia, having separate schools for Negroes. They also give number of staff (64,495) and students (2,259,392), by sex, in all private elementary schools, by State; and for the number of staff and students in Catholic elementary schools, by State, as reported by the National Catholic Welfare Conference.

In "Statistics of City School Systems," data are given for elementary schools (including nursery and kindergarten where present) for enroll-

ment (34.2) and average daily attendance (28.0) per teacher for all city schools combined and for each of the 4 city-sized groups.

Secondary Education

During the year the study was completed of public high-school statistics for 1945-46 for the 24,314 schools of all types employing 326,776 staff members and educating 7,140,164 pupils, including those in junior high schools. This was the first large study in this field since 1937-38, when there were 8,016,384 pupils. Because there were almost 1 million fewer persons aged 14-17, inclusive, in 1945-46 than in 1937-38, it would be expected that there would be 710,000 fewer persons enrolled in high school. Therefore, about four-fifths of the 876,220 decrease in enrollment was due to the decrease in births.

In 1945-46, 445,647 boys and 570,917 girls were graduated from the fourth year by 20,065 public high schools. Public and private high schools have graduated more than 1 million pupils a year for 11 years (1935-36 to 1945-46) and probably each year since 1945-46.

The enrollment in the last 4 years of public high-school work in 1945-46 was 5,706,389 pupils; this number was 65 percent of the total number of persons 14-17 years of age in the population.

There were about 10,000 fewer men and 16,000 more women teaching in high school in 1945-46 than in 1937-38, reflecting the exodus of men from teaching during the war.

The 1,732 high schools in 11-grade school systems enrolled 322,897 pupils, whereas the 22,215 high schools in 12-grade systems enrolled 6,596,727 pupils (exclusive of ungraded high schools and those with enrollments of fewer than 10).

One of the outstanding features of high-school development over the past 35 years has been a steady and uninterrupted increase in the number of schools deviating in form of organization from the 8-4 or 7-4 types of school organization in favor of some sort of "reorganized" pattern such as 6-3-3 or 6-6 type. In 1945-46 the reorganized schools constituted 43 percent of the total number, had 62 percent of the pupils, and 58 percent of the staff members, compared with 39 percent, 56 percent, and 54 percent, respectively, in 1937-38.

Vocational Education

Vocational education statistics are reported in a separate section.

Libraries

In order to study the library resources available for instruction and self-education, the Office of Education periodically collects and

reports statistics on the holding, services, personnel, and expenditures of school, college, and public libraries. These comprehensive surveys, scheduled on a quadrennial basis, are supplemented by occasional limited studies made annually.

The latest Nation-wide compilation for college and university libraries, covering the academic year ended June 30, 1947, showed the following figures in comparison with those for 1939-40:

	1946-47	1939-40
Number of institutions submitting report-----	1, 345	1, 321
Number of volumes:		
Added during year-----	3, 602, 198	3, 194, 578
At end of year-----	94, 300, 665	71, 666, 801
Added per student-----	1. 9	2. 6
At end of year per student-----	48. 3	59. 8
Circulated for home use per student-----	15. 0	21. 7
Number of reserve books circulated per student---	18. 7	30. 0
Total operating expenditures (excluding capital outlays)-----	\$34, 621, 588	\$17, 976, 231
Operating expenditures per student-----	\$18. 07	\$15. 31

It may therefore be assumed that our college and university libraries were operating at the close of the 1948-49 school year with slightly more than 100 million volumes in their collections and were expending annually at least \$38 million, exclusive of capital outlays.

In the case of the institutions with enrollments of 5,000 students or more, their expenditures in 1946-47 for library purposes were distributed as follows: Salaries: library staff, 51.1 percent; Wages: student service, 8.6; Books and periodicals, 31.4; Binding, 3.5; Other (excluding building maintenance), 5.4.

The comprehensive study of the 7,500 public library systems in the United States is not scheduled until 1950, but an analysis of the annual reports of the 94 public libraries in cities with populations of 100,000 or more showed an increase from 1945 to 1948 of 7 percent in number of volumes at end of year, 12 percent in number of registered borrowers, 4 percent in circulation, and 43 percent in expenditures (excluding capital outlay).

At the beginning of 1949, this group of large-sized public libraries possessed 45,142,081 volumes and circulating 133,283,304 annually; and were expending \$45,205,592, exclusive of capital outlays.

Public-school library statistics for the school year 1947-48 were collected during 1949, but the compilation and analysis had not been completed at the end of the fiscal year.

Special Education

More exceptional children and young people were enrolled in special schools and classes than ever before. More than twice as many local

school districts reported special educational services for such pupils in 1948 as in 1940. Despite a slight decrease in total day school enrollment, the enrollments in special schools and classes for exceptional children and youth in local school districts increased by 20 percent (from 313,722 to 378,059).

From 1931-32 to 1947-48 there was an increase of 90 percent in the number of children reported as receiving special educational services in public schools or in State and private residential schools. Yet hundreds of thousands—even millions—who need such services are still not getting them.

Administration of Grants

PROGRAMS UNDER CONSIDERATION

General Federal Aid to Education

Although general Federal aid to education has been discussed for many years, the need for Federal aid has probably been more clearly recognized this year than at any previous time. In his budget message in January 1949 President Truman stated:

. . . In many areas, teachers' salaries are low, particularly in the elementary grades. Too many are leaving the profession; too few are entering. Enrollments are rising. As a result, overcrowded classrooms and substandard instruction are common. As the large number of children born during and after the war reach school age, the situation will become even worse.

Many States are finding it difficult, even with high tax rates, to pay adequate salaries or to take other corrective measures. It is therefore urgent that the Congress enact legislation to provide grants to the States in support of a basic minimum program² of elementary and secondary education for all our children and youth. This Budget includes a tentative appropriation estimate of 300 million dollars for such grants in the fiscal year 1950.

Evidence of the need for general Federal aid has rapidly accumulated. Studies show that the wealth per child in the eight most wealthy States is approximately three times the wealth per child in the eight least wealthy States. This means generally that unless Federal aid is available for schools, the least wealthy States will have to make approximately three times the fiscal effort to support their schools as the most wealthy States, or will have to be satisfied with lower standards of education. The evidence shows clearly that the least wealthy States have in general made about 50 percent greater fiscal effort to support their schools than the most wealthy States and yet have not been able to provide satisfactory educational programs.

More bills relating to Federal aid to education were introduced

in the first 6 months of the 81st Congress than in any previous comparable period. Most of these bills are designed to provide an equitable system of Federal aid to schools without imposing Federal controls.

The Senate, having passed a bill providing for general Federal aid to education during the 80th Congress, acted favorably upon a similar bill in May 1949 (S. 246). At the close of the fiscal year, legislation on this subject was still before the House of Representatives.

Federal Programs of School Health Services

In cooperation with the Children's Bureau of the Social Security Administration and with the Public Health Service, the American Academy of Pediatrics made a study of child health services which showed a serious lack of school health services, particularly in the isolated semi-rural and isolated rural areas. This lack is shown graphically in chart 4.

In the areas adjacent to and including the metropolitan areas (combining the first three county groups), 11 percent of the children were in counties without school health services; whereas in the isolated semi-rural and isolated rural areas (combining the fourth and fifth groups), 42 percent of the children did not have school health services. The study also showed that the administration of the program in the more populous areas was predominantly under school jurisdiction, while in the less heavily populated areas it was largely under the jurisdiction of departments of health. Forty-eight percent of the children lived in districts in which the responsibility was under schools, 12 percent lived where it was joint health agency and school, and 36 percent lived in areas in which it was under health agencies, and 4 percent under other agencies.

In 10 States 50 percent or more of the children lived in counties with no school health services. In 10 additional States, 30 to 49 percent of the children lived in such counties.

To meet this lack of services, a school health services bill was introduced into Congress and passed the Senate, but had not been voted upon in the House of Representatives at the close of the fiscal year. To obtain full information, the Office completed a study of the present legal responsibility for school health services.

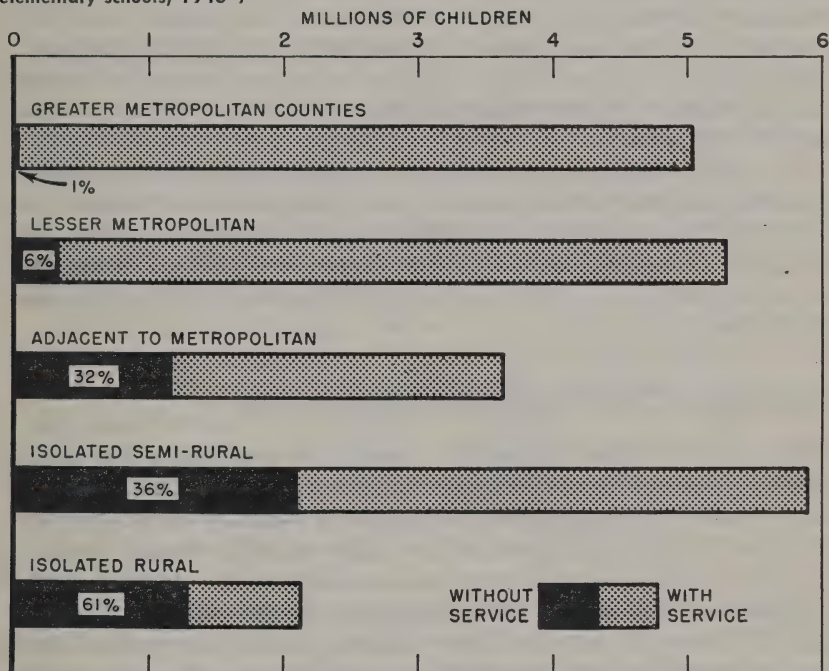
Established Federal grants to States have continued, directly or indirectly, to bring improved health services to children of school age. Among these grants are those for maternal and child health and crippled children's services, through the Children's Bureau, and those for public health education and tuberculosis, through the Public Health Service.

The experimental study on methods of vision testing, carried out under the auspices of the National Society for the Prevention of Blindness, the American Academy of Ophthalmology, the Children's Bureau, and the St. Louis Board of Education, was completed.

The American Medical Association conducted a survey of local medical societies on their participation in the school health program. Supplementary studies are being made of the schools by the Office of

Chart 4.—SCHOOL MEDICAL SERVICES

(Proportion of children aged 5-14 in counties with no organized medical service in public elementary schools, 1946¹)



¹ A county is said to be without school health service if there is not at least one public elementary school in which children are given a medical examination by a physician.

Education. This is an example of cooperation between education and the medical profession.

In the past year the use of the topical application of sodium fluoride was extended in an attempt to decrease the amount of dental caries in school children. This extension, a joint project of health and educational authorities, was stimulated in part by funds provided by the Public Health Service for experimental purposes.

There has been an increasing interest in mental health for school children, school personnel, and the community as a whole, with workshops devoting considerable time to this subject. Emphasis

is being given to meeting the mental health needs of children and school personnel with increased pre-service and in-service training for school personnel in this field.

Federal Programs for School Plant Construction

From January through June 1949, 40 bills were introduced in the 81st Congress to authorize Federal financial assistance for the construction of elementary and secondary school facilities. Twelve of these bills pertain to *special* and specific situations, 8 propose assistance for *emergency* construction only in cases where the urgent needs have resulted from war and specific Federal activities, and 20 propose to make Federal funds available to all States for needed school construction *in general*. These 20 bills fall into 8 different administrative and distribution patterns.

Six school construction bills, each representing a different administrative and distribution pattern, were referred to the Senate Committee on Labor and Public Welfare, which organized a special subcommittee to consider them. The Subcommittee held public hearings on these bills in June 1949 but had not reported a bill by the close of the fiscal year.

Recognition of Need for a Scholarship Program

The report of the President's Commission on Higher Education, released in December 1947, had wide discussion during the past year. Among the recommendations was one for a federally financed system of fellowships and scholarships, to enable capable young people to continue their education beyond the secondary level. As the program of educational benefits for veterans tapers off, the need for a similar plan of financial assistance for selected nonveteran students will be more generally felt. Studies have shown that half or more of the most capable high-school graduates do not enter college, largely because they cannot afford to. The waste of this most precious of all natural resources can be prevented only by some program of financial assistance to students. A few States have provided scholarships in limited numbers and amounts. The resources available to the States and to the individual institutions are inadequate to meet the demonstrated national need. The President's Commission on Higher Education came to the conclusion that the problem can only be solved by a plan using Federal funds for scholarship purposes. The Commission, composed of nationally known educators, recommended such a program.

The President's budget message of January 1949 recommended

an appropriation of \$1 million to the Office of Education for two studies, one of which would be concerned with plans for administering and operating a program of scholarship assistance. It was subsequently decided not to undertake such a study but that the Office of Education should prepare a staff memorandum summarizing the known facts concerning the need of assistance for students in higher institutions. In May 1949 the Division of Higher Education of the Office held a conference of national educational leaders to study this problem. The Office then submitted its recommendations to the Bureau of the Budget in the same month.

OCCUPATIONAL TRENDS

A trend toward higher employing standards was particularly noticeable during the past year and has created needs for more skilled and better educated employees at all levels.

President Truman's "point 4" is one indication among many that the United States will be increasingly called upon to provide men and women with a large variety of skills and abilities, to help in the rehabilitation of the war-torn world.

Among occupational conditions directly affecting vocational education was a pronounced shortage of craft workers, accelerated by the relatively high average age of workers in certain crafts. In industry the rapid increase in the number of apprentices since World War II continued, resulting in a greater demand on the public schools for related training and instructional materials. Farmers purchased an increasing amount of power-driven machinery during the year, which in turn increased the demand for persons skilled in the care and operation of farm machinery.

The trend in industry is toward increased dependence upon science and technology. This dependence has perhaps been accelerated by the developments in the utilization of atomic energy. The trend was reflected in the employment of more engineers and scientists in industry and business. The needs of industry and business were in turn reflected in college enrollments in engineering and scientific curriculums. In 1948-49 the colleges graduated the largest classes of engineers and scientists in their history.

Industry also evidenced an increasing need for well-educated persons for administrative positions, a need reflected in a large increase in the enrollment of students in business education. As in engineering, the number of graduates in this field rose to an all-time peak. The greatly increased enrollments in all fields of training which prepare for business careers emphasize the growing need for adequate and effective guidance services to high-school and college students, in

order that the students seeking professional careers may have adequate knowledge of the professions in which they are interested, and may be guided into the professions for which they are best qualified.

There has been an acute shortage in all branches of the health professions—physicians, dentists, nurses, laboratory technicians. Public health authorities, for example, point to the need for training at least 20,000 practical nurses a year for the next 10 years.

There were shortages of elementary teachers in practically every State during 1948–49 (see extended discussion elsewhere in this report.)

The large numbers of married women who work outside the home, as found in a survey (1947 data) published by the Census Bureau in 1949, indicate that homemaking programs need to serve not only the teen-age children who are taking responsibility at home, but also women who are gainfully employed and also keep house.

GRANT PROGRAMS ADMINISTERED BY THE OFFICE

Vocational Education—Instructional Problems

AGRICULTURAL EDUCATION

The Office's Agricultural Education Service, Division of Vocational Education, cooperated with the Department of Agriculture in the publication of a bulletin entitled "Price Program of the U. S. Department of Agriculture—1949." More than 300,000 copies of this bulletin, 10,000 bulletins containing outlook charts, and copies of an outline of conservation practices were made available to departments of vocational agriculture for use by in-school farm boys, out-of-school young farmers, adult farmers, and veterans who are enrolled in the institutional-on-farm training programs.

A special regional committee devoted the greater part of a year in developing a long-time comprehensive program of work for agricultural education, setting forth plans by which the States and local communities may put into operation a complete program of agricultural education.

In cooperation with the American Society of Agricultural Engineers, special working conferences were planned for farm mechanics teachers. Frequent discussions were held with representatives of the American Institute of Cooperation, the National Grange, the American Farm Bureau Federation, the Farmers Union, and the National Council of Farmer Cooperatives on the instructional problems to be taken up in classes in vocational agriculture. Four regional conferences of supervisors and teacher trainers were held which emphasize instructional programs for young and adult farmers, and for veterans enrolled in institutional-on-farm training classes.

Two studies are under way for improving instruction in agriculture—one to work out a functional program in agricultural education for young farmers and the other to formulate plans for evaluating institutional on-farm training for veterans.

The membership in the Future Farmers of America, the national organization of students of agriculture in public secondary schools, increased during the year roughly from 260,000 to 280,000. The New Farmers of America, a national organization for Negro Farm boys in States maintaining separate schools for Negroes, grew roughly from 26,000 to 28,000. Leadership training schools were conducted by the Agricultural Education Service for the officers of these two organizations.

BUSINESS EDUCATION

The Business Education Service gave major attention during the year to the preparation of a step-by-step schedule of planning, developing, and organizing a long-range adult instructional program in the distributive occupations. This schedule provides for a reasonably complete subject-matter coverage of the several levels of employment in the major areas of retail and wholesale distribution and the distributive phase of service occupations. Under this program an adult distributive worker will be able to pursue, in sequence, related courses providing comprehensive training in a specific area of distribution.

The Business Education Service worked cooperatively with numerous national trade associations, for example, the National Leather and Shoe Finders Association and professional organizations, in the preparation of instructional materials.

HOME ECONOMICS EDUCATION

Teachers of home economics in service need many kinds of help with their instructional problems. In most States a large number of inexperienced teachers are found in the home economics field, for many are employed only a few years and then leave to marry or to enter better-paying professions. War marriages have brought with them many problems which call for special insight into family relations and child development on the part of both youth and adults. These aspects of the home economics program should be strengthened. Many home economics departments need better equipment for teaching these and other phases of home and family living.

Because of these conditions the Home Economics Education Service helped State leaders in 16 States to plan for State-wide curriculum studies and State or district curriculum conferences, or to evaluate and organize for publication materials that had been developed by teachers. In several States, representatives from this Service assisted

in evaluating the local and State needs and helped set up a long-time plan which would emphasize different aspects of the program in succeeding years.

Work was completed on two bulletins—"Frontiers in Homemaking Education—A Program for Adults" (Vocational Division Bulletin No. 239) suggesting guides to supervisors and teachers who are organizing and developing adult homemaking education programs, and "Space and Equipment in Homemaking Education" (Misc. No. 9) for persons planning homemaking departments in secondary schools. The leaflet "Home Economics in the Public High Schools of the U. S. A." was published.

In 1945 high-school girls began organizing chapters of the Future Homemakers of America and of the New Homemakers of America on a national basis. During 1948-49, 737 new chapters were organized in both groups and membership increased by roughly 26,000, raising the total membership to nearly 295,000. Because of the increase in membership in the two groups, many teachers, supervisors, and teacher trainers have needed help in integrating this work with the other parts of the school program. One representative of the Office of Education visited 31 States during the year to give help on this problem.

TRADE AND INDUSTRIAL EDUCATION

The Trade and Industrial Education Service, at the request of the Air Force Training Command, made a special study of 10 training centers conducted by the Command. An official report was made to the Command Headquarters setting forth the criteria for evaluation, describing existing situations, and making recommendations for improving the instruction in Air Base schools.

The Service assisted in the development of new types of instructional materials for firemen. Pictorial manuals—"Handling Ladders" and "Handling Hose and Salvage"—were prepared by a joint committee from the International Association of Fire Chiefs, The Fire Department Instructors' Conference, and The National Fire Protection Association. In addition, the Service prepared a bulletin "Arts and Crafts: A Bibliography for Craftsmen," issued by the National Gallery of Art, and a bibliography on occupations for girls and women, for use by the Women's Bureau of the Department of Labor. In cooperation with a national committee representing the national associations of nursing education, a curriculum for the use of schools offering training for the occupation of practical nursing was prepared for publication. This curriculum, organized to conform to an analysis of the occupation previously published, was designed for use of vocational schools and cooperating hospitals training practical nurses.

The Trade and Industrial Education Service prepared a list of instructional materials on apprentice training for distribution to State and local school authorities, and to training officials in industry. The Service coordinated the exchange among States of instructional materials and study guides for apprenticeable occupations. A program for completing a uniform pattern of study guides for apprentices in railroad shop crafts was coordinated among seven States engaged in this type of training.

The Service provided leadership for four regional committees working on improving trade and industrial education programs through studies on placement and follow-up of trade school graduates; standards for trade school buildings; production of visual aids for instruction; and an outline of technical vocational courses.

OCCUPATIONAL INFORMATION AND GUIDANCE

The eighth National Conference of State Supervisors and several regional conferences held by the Occupational Information and Guidance Service helped more than 100 State supervisors and counselor-trainers to exchange ideas on guidance practices.

The first draft of a publication on occupational information for training counselors was completed. Documents on the implication of the new draft law, on occupations in the Navy, and on occupational outlook were produced, either by the staff of the Service or by other agencies with the assistance of the staff.

Demonstration and pilot guidance centers were operated on an experimental basis in several States to establish patterns that could be used by other schools.

Vocational Education—Organization and Administrative Problems

For the first time, policies for the administration of the Federal vocational education acts were published in the *Federal Register* during the fiscal year. The policies were also printed as "Administration of Vocational Education" (Vocational Education Bulletin No. 1, rev. 1948).

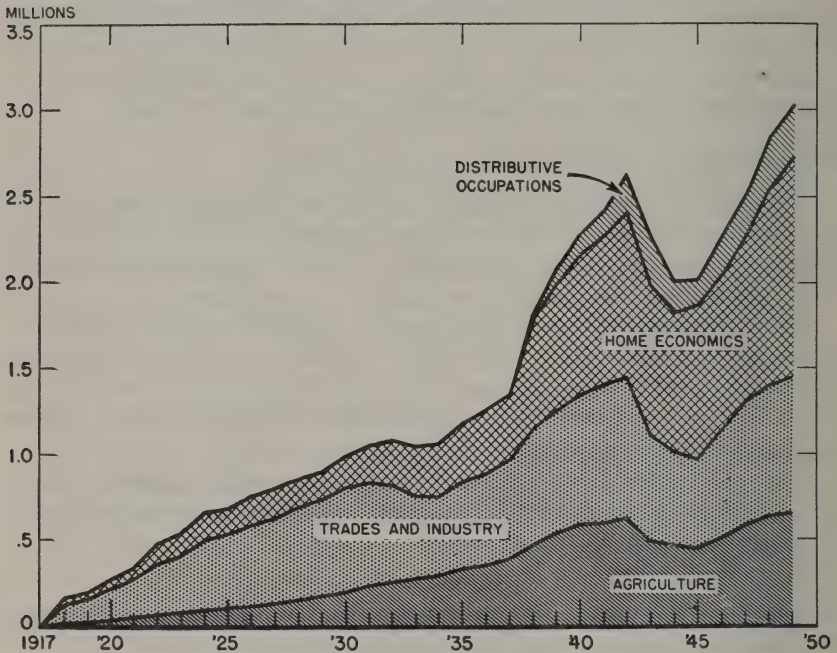
Assistance was given States in total program planning and evaluation, in analyzing needs from the budgetary standpoint, and on problems regarding the responsibilities of State boards for vocational education as the ultimate authority in the State for the vocational education program.

New procedures were used in auditing the State's accounts of Federal and State matching funds for vocational education. A fiscal audit was made by the Grant-in-Aid Audit Unit of the Federal Security Agency and a program review of professional aspects of State expendi-

tures was made by the Division of Vocational Education Office of Education. Heretofore one person from the Division made both the fiscal audit and the program review in a State.

Approximately one-fourth of the States now provide, through the vocational division of the State department of education, supervision and leadership for all phases of business education—office training and distributive training. Other States provide supervision only for the

Chart 5.—ENROLLMENT IN FEDERALLY AIDED VOCATIONAL CLASSES



federally aided distributive occupations training. In response to the interest and requests of the States, the Business Education Service is assisting them in developing an organizational pattern that will best facilitate effective vocational training in all phases of business education.

Special problems were presented in the area of guidance services. States had problems dealing with budget provisions, the duties and qualifications of new officers, and, in many cases, with first steps in providing guidance services. Thirty-one States were aided in this program planning, six States in reactivating dormant programs, and three States in establishing new ones.

The postwar increase in enrollments in all types of vocational education classes (day, evening, part-time) brought the total enroll-

ment in all phases of vocational education for 1948-49 to a new all-time high. Enrollments since 1917 in each of the four fields of vocational education are shown in chart 5.

The Federal funds appropriated for vocational education programs in the States are shown in table 1. These amounts were identical with those for the preceding year.

TABLE 1.—Funds available for allotment to States from Smith-Hughes and George-Barden Acts, fiscal year 1949

Purpose	Smith-Hughes Act	George-Barden Act
Total.....	\$7, 285, 122	\$19, 842, 760
Agricultural education.....	3, 058, 453	6, 889, 084
Trade and industrial education.....	¹ 3, 111, 913	5, 603, 853
Home economics education.....	-----	5, 555, 324
Distributive occupations education.....	-----	1, 794, 499
Teacher training.....	1, 114, 756	-----

¹ Not more than 20 percent may be used for home economics.

Despite the fact that no additional Federal funds were available for vocational education in 1948-49, the State and local expenditures for vocational education increased, as shown in table 2. In many cases this means that States, in order to establish vocational programs in schools not previously served, are decreasing the rate of reimbursement from Federal funds to schools with currently established vocational programs.

TABLE 2.—Expenditure of Federal, State, and local funds for vocational education, by type of program, fiscal years 1948 and 1949

Source of funds	Expenditures				
	All programs	Agriculture	Distributive occupations	Home economics	Trades and industry
1947-48					
Total.....	\$103, 675, 710	\$30, 539, 600	\$3, 861, 231	\$28, 380, 202	\$40, 894, 675
Federal.....	26, 192, 984	9, 887, 090	1, 525, 506	6, 260, 411	8, 529, 977
State.....	25, 848, 610	6, 849, 464	1, 251, 696	7, 539, 236	10, 208, 213
Local.....	51, 634, 116	13, 813, 046	1, 084, 029	14, 580, 555	22, 156, 485
1948-49 ¹					
Total.....	119, 293, 893	34, 615, 022	5, 423, 961	33, 405, 719	45, 849, 191
Federal.....	26, 406, 924	10, 048, 995	1, 548, 877	6, 243, 033	8, 566, 019
State.....	30, 356, 147	7, 942, 476	1, 449, 913	8, 732, 370	12, 231, 388
Local.....	62, 530, 822	16, 623, 551	2, 425, 171	18, 430, 316	25, 051, 784

¹ Provisional figures, subject to final audit of State reports.

Vocational Teacher Education

AGRICULTURE

The Agricultural Education Service made a special effort to emphasize the directed teaching phase of the resident teacher-training

program by conducting workshops for critic teachers in Pennsylvania, Maryland, Delaware, New Jersey, Michigan, and Louisiana.

The Service cooperated with a joint curriculum committee of the American Society of Agricultural Engineers in working out the training needs of teachers of vocational agriculture in farm mechanics.

Reports were prepared showing the number of new teachers available and how they were placed in 1948. Information was also collected showing the percentage of agricultural college graduates who qualified as teachers of vocational agriculture.

BUSINESS

As a result of a national workshop conducted by the Business Education Service for State supervisors and teacher trainers, a bulletin dealing with the pre-service and in-service training of teachers of distributive occupations was prepared. This publication presents the best practices, standards, and curriculums of the several States.

The lack of occupational experience is one serious deficiency of business teachers, particularly those teaching courses not federally aided. In an attempt to meet that need, and in response to the request for assistance from many teacher-training institutions, the Service prepared a bulletin on "Business Experience for Business Teachers" (Vocational Division Bulletin No. 241). A representative committee of businessmen and business educators assisted in its preparation. It presents five plans for incorporating the optimum amount and kind of business experience in the training and professional improvement of business teachers, coordinators, and supervisors.

The Service conducted four regional conferences dealing in part with the problems of teacher education, and gave assistance to 27 colleges and universities in either the planning or the further development of their teacher-training programs. The Service participated in the summer school teacher-training sessions of 5 universities, in 4 university and college workshops, and in training conferences for teacher-coordinators in 2 States.

HOME ECONOMICS

The shortage and the rapid turn-over of home economics teachers necessitate continuous re-evaluation of teacher-education programs. Some of the activities of the home economics staff were directed toward assisting institutions in studying their whole undergraduate program for preparing teachers, aiding them in developing more satisfactory centers for student teaching, helping them study the effectiveness of certain types of off-campus teaching experiences, and holding conferences with college and supervisory personnel to find better ways of integrating pre-service preparation with in-service training.

Special attention was also given to ways of strengthening some aspects of the undergraduate curriculum in home economics. Conferences were held for college teachers of family relations and child development, and assistance was given in planning and conducting two regional conferences and planning a national workshop for college teachers of textiles and clothing.

Besides visiting States and holding four regional conferences to give assistance with these teacher-education problems, members of the home economics staff held an interregional conference for home economics education of Negro leaders, to consider objectives for the college home economics program. They also conducted a regional and a State conference for city supervisors of home economics and assisted in conducting a 2-week workshop for city supervisors studying techniques of supervision and problems of city organization and curriculum.

The Home Economics Education Service cooperated with the Research Committee in Home Economics of the American Vocational Association in a Nation-wide study of factors affecting the supply of home economics teachers. States were given help in analyzing questionnaires returned by teachers and in planning ways to bring their findings to the attention of school administrators, laymen, teacher trainees, and supervisors, who can help change conditions causing dissatisfaction. Another phase of this study emphasized during the past year was the development and preliminary trial of a series of inventories to be used with high-school and college students to determine why they choose or do not choose to take home economics or to prepare for home economics professions.

Members of the Home Economics Education Service staff assisted the State supervisor and research workers in one State in planning a study of teaching foods in the ninth grade, evaluated plans and materials in home economics education studies submitted for criticism and suggestion by eight States, made suggestions for doctor's dissertations and other graduate studies at two universities, and reviewed and made suggestions on the report of a State study evaluating high-school programs in home economics.

TRADE AND INDUSTRIAL

Through a series of five regional conferences the Trade and Industrial Education Service interpreted to State supervisors of trade and industrial education and industrial teacher trainers the results of a study of samples of teacher-training courses made with a view to obtaining uniformity in title and content in such courses. The sequence and the time required to meet the needs of both pre-service and in-service training and the methods to be used were studied. In

addition, special training conferences for supervisors and instructors for fireman training and for rural electrification job instructors and safety trainers were conducted. The Service also coordinated the exchange of information among States on certification requirements, instructor selection, and qualifications standards.

COUNSELOR PREPARATION

The Occupational Information and Guidance Service worked with nearly 100 guidance specialists from almost every part of the country in editing and coordinating reports on counselor training.

Counselor training programs were established in 14 States and reimbursed from George-Barden funds. The Service aided in suggesting programs and in selecting and obtaining staffs for these programs. Related to this development was that for certification of counselors, a problem in which 19 States required assistance.

Land-Grant Colleges

The Federal supplementary Morrill appropriation for instruction in the Nation's 69 land-grant colleges and universities was continued for 1948-49 at its customary amount—\$5,030,000. The annual report on these appropriations was prepared as required by law.

The enrollment of full-time students in these institutions as of October 1948 was 458,854—practically the same as for the previous year. For the fiscal year 1948, latest figures available, the income for educational and general purposes was \$484,876,565, of which \$174,127,306 came from the Federal Government. Of the Federal contribution, \$85,505,372 came from the Veterans' Administration for fees and educational supplies, \$45,486,924 from various government agencies for special research, \$5,030,000 from the Federal Security Agency for campus instruction, and \$38,105,010 from the Department of Agriculture for agricultural experiment stations and cooperative extension services.

Federal Property Donations and Disposals

VETERANS EDUCATIONAL FACILITIES PROGRAM

Supplemental facilities for the education and training of veterans have been acquired by nearly 1,700 schools and colleges under the provisions of Public Law 697, 79th Congress, which authorized the establishment of the Veterans Educational Facilities program. War surplus buildings have been used to provide nearly 19 million square feet of floor space for educational uses at a total cost to the Federal Government of slightly more than \$76 million. Items of personal

property in war surplus, having an estimated fair value of approximately \$124 million, have been transferred to educational institutions by the Federal Works Agency upon certification by the Commissioner of Education that the facilities were needed for the education and training of veterans. Although the maximum number of veterans enrolled at any one time in participating institutions was about 1,200,000, these facilities have been made available to probably two or three times that number. The acquisition of property by the Federal Works Agency under this program ended December 1948. Liquidation is now in progress.

ARMED SERVICES DONATION PROGRAM

Public Law 889, 80th Congress, authorized the Secretaries of the Armed Services to donate obsolete and surplus equipment, materials, books, and other supplies determined by the Commissioner of Education to be needed and usable for educational purposes. During the fiscal year 1949 the Office of Education allocated donable property from these sources with a total acquisition value of more than \$85 million among the 48 States, the District of Columbia, and the Territories for distribution by State educational agencies to public tax-supported and private nonprofit schools, colleges, and universities. This program provided at a considerable saving much-needed equipment, materials, and supplies for vocational shops, engineering and scientific laboratories, and classrooms in an estimated total of more than 25,000 schools, colleges, and universities.

SURPLUS REAL PROPERTY PROGRAM

Approximately 1,500 applications were submitted during the fiscal year by educational claimants for surplus real property under the Surplus Property Act of 1944. Need and ability to use the property effectively were surveyed in each case and recommendation submitted by the Office of Education to the War Assets Administration. Transfers of real property for educational purposes to 1,682 schools and colleges included 20,897 acres of land and 6,249 buildings, which cost the Government \$107,428,016, but which cost the schools receiving the property only \$514,283. This property furnished facilities for classrooms to relieve overcrowding and make full day sessions possible, for veterans training programs, trades training, cafeterias, gymnasiums, playgrounds, and recreation centers, and for scientific and agricultural research. Utilization inspections of transferred surplus real property were begun in February 1949 to assist the educational transferees in meeting terms and conditions upon which public benefit allowances were granted, to recommend changes in such terms and conditions, and to assist in the retransfer to other eligible educational

claimants of residual materials and property not needed by the transferee.

Inspection of Howard University

The legally required annual inspection of Howard University was made by the Office of Education. The master plan for the development of the University was considered at length by the inspector. The architect's plans for the buildings being built in conformity with that master plan were examined. Proposals were made to the University administration for future consideration having to do with the long-time program of the University and its place in the Nation-wide higher education system for Negroes.

Programs of Organization and Administration

ELEMENTARY EDUCATION

For many years the elementary school has been accepted as the institution providing fundamental education for children between the ages of 6 and 14. But as new demands have been placed on the schools of the Nation, they have been gradually growing upward and downward, as well as outward, to include many activities fostering the best development of children and youth. Living and learning are now the keynotes of modern education. In a study of elementary school programs in 100 cities, 42 reported that they had extended the school schedule and were operating programs for children of school age outside the regular school hours. Sixteen had extended such services to include children as young as 3 and 4 years of age. This trend has also been reflected in State legislation providing or continuing facilities of this kind, as in California and the District of Columbia. In four States—Connecticut, Illinois, Indiana, and Michigan—citizens' groups have supported the enactment of permanent State legislation for nursery school education. All States but one have for years given to local school systems legal authority for establishing kindergartens.

The provision of education for exceptional children has likewise shown great progress. Forty-two States now have State laws authorizing or requiring State-wide educational provisions for physically and mentally handicapped children in local school districts.

Thirty-four of them grant financial aid to help local schools to pay the excess cost involved. Since 1930, and even since 1940, the increase in the number of States making such provisions has been more than 100 percent. As a result, more exceptional children than ever before are now receiving special educational services at school. For those physically unable to attend school, instruction at home or in the hospital is also being provided in ever-increasing degree.

One stumbling block to the continuous progress of children enrolled in the first years of school has been the traditional demand for the acquisition of skills within specified time limits without regard for the individual child's stage of development and social adjustment. Under the caption "Primary Unit" or "Primary School" an administrative technique has been devised to overcome this difficulty. By this plan, each child moves along from the kindergarten through the third grade with little or no break in his individual learning pattern. Traditional "grade" lines give place to flexible grouping, and continuing records of growth and development guide the placement of each child. Experience with this "unit" plan has shown less retardation and improved social adjustment by children at the end of the third school year.

In the area of learning resources, emphasis has been placed upon the use of not only printed materials, but all types of audio-visual aids and on-the-spot visits to industrial and cultural centers, such as manufacturing plants and museums. Too often in the past these have been ignored as aids to teaching and learning. Through workshops and conferences held by many teacher-education institutions teachers have been helped to recognize what constitutes a learning resource in their own communities.

Even with all of these developments, few communities provide adequate educational services for all groups of the population—children, youth, and adults. Many school systems have taken steps to organize a coordinating council or committee for the improvement of educational services. The activities of such councils have centered on making plans for curriculum revision, reporting to parents, better home-school relations, planning new buildings, and increasing funds available for education.

The National Council of State Consultants in Elementary Education decided upon a long-time study of evaluation as basic to the total educational program at the elementary level. They considered aspects of the problem at their last two annual meetings and set up working committees of the membership to attack their problems. States that participate in the Southern States Work Conference also have a committee which is studying the problem of evaluation.

Answers to the questions most frequently asked about ways in

which elementary schools are organized and supervised were supplied by first-hand reports of the practices in 100 city school systems. These school systems are located in cities of all population sizes in 43 States.

The reports were obtained by staff members of the Office of Education in conferences with superintendents and members of their staffs. The following questions are among those for which answers were provided:

What are the existing types of elementary school organization? Who is responsible for general supervision? How are daily schedules developed? How large are the classes? What is the content of cumulative records? What coordinating councils or committees are sponsored by the schools? How are instructional materials selected for teacher use?

The answers to these and other questions given by the 100 school systems show certain common practices as well as those that may be attributed to the organization of local school service and to the philosophy of education followed.

The report does more than show trends in school organization and administration. It offers an opportunity for teachers, principals and, supervisors to compare specific details of their programs with those of other cities. It also gives the superintendent of schools, his board of education, and interested citizen groups an opportunity to look at their school programs in the light of their needs and accomplishments

State Educational Programs Work Conference

Related to the interests and activities of State department of education personnel is the Work Conference on State Educational Programs held annually at the Office of Education. Recognizing the leadership functions of members of State departments of education and their need to compare experiences, the Divisions of Elementary and Secondary Education and the Division of Auxiliary Services, Service to Libraries Section, invited State departments of education to send representatives to a 2-week work conference in May 1949 to discuss problems of their own selection. Thirty States were represented.

The group identified several major areas in which they wished to work: curriculum, evaluation, teacher education, and the education of exceptional children. These areas were subdivided to meet the interests of small groups and individuals. For example, one of the small groups worked on curriculum problems of the small high school. One studied methods of accrediting schools. One studied characteristics of the community school and another discussed ways of appraising the school program. Librarians preferred to work most of the

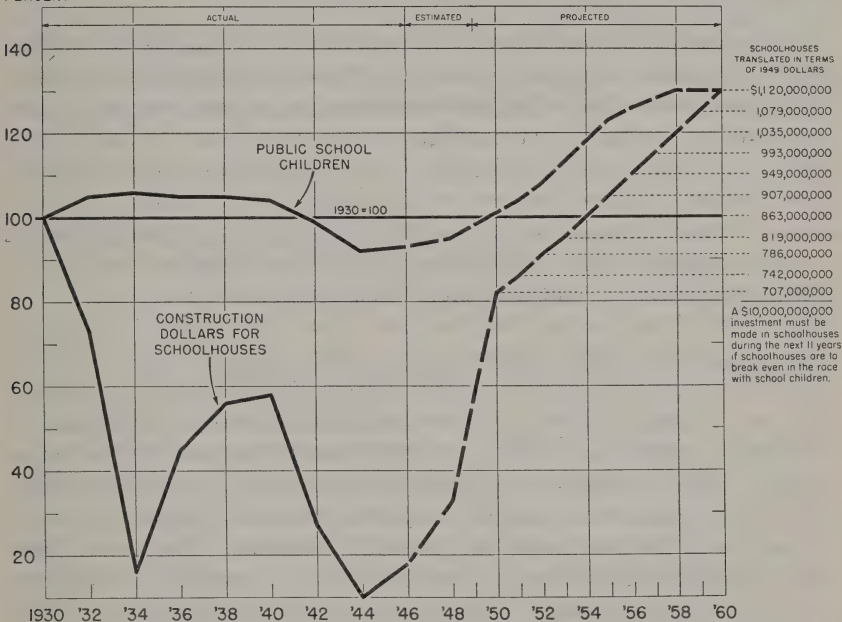
time with the other groups rather than as a separate section, for that is the way they work in the States and in local schools. Seven workers from the Florida State Education Department developed a guide to help the schools of their State evaluate their programs.

States Face a Building Program

Elementary schools throughout the Nation are faced with serious classroom shortages. In one State, a recent State-wide school survey revealed that between the school years 1948-49 and 1956-57 there will be an increase of at least 163,000 elementary school pupils.

Chart 6.—SCHOOLHOUSES AND SCHOOL CHILDREN.¹

PERCENT



In that State, for example, on the basis of 30 pupils to a class grouping, at least 5,400 new classrooms with the necessary auxiliary facilities will be needed in the next 7 years. But this is only part of the need as revealed by the study. By conservative estimates it was calculated that more than 2,000 new classrooms will be needed to replace worn-out, unsafe, and totally inadequate ones now in use.

One aspect of this problem which needs special emphasis is that *educational planning* should precede *construction planning*. The kind

of planning which will be done will influence the lives of millions of boys and girls, and in fact the character and quality of life in the communities which the new buildings serve.

In the past the major responsibilities for planning the school building were often left to the architect. This practice is changing rapidly. More and more, elementary buildings are being constructed in relation to the educational planning of school administrators and school staffs and members of the community. To show some ways to bring about joint planning for new buildings, the Division of Elementary Education published an education brief, "Developing the Educational Specifications."

SECONDARY EDUCATION

The organization and internal administration of secondary schools received attention from a number of Office of Education specialists. The Office has a series of projects on class size, extra-classroom activities, student councils, organization of personnel in the large high school, place of general education in the educational program, and experimental or new-type curricular practices in secondary schools; also a cluster of projects on practices looking toward expansion of services through technical institutes, technical schools for rural youth, extension education, and correspondence instruction.

Evaluation of School and of Individual Pupils

There has been a change of view among school persons in regard to evaluation programs. This has been brought about by the wide expansion in the use of two educational techniques. One is described in the 1940 edition of the "Evaluative Criteria" prepared by the Cooperative Study of Secondary School Standards. The use of these criteria has spread the idea of over-all school evaluation. During the past 18 months a thorough revision of the "Evaluative Criteria" has been made.

The other development has been the new way of appraising pupil growth. In the beginning of measurement and evaluation work, usually only one or two facets of a pupil were appraised. Now many different aspects are assessed in order to make a comprehensive evaluation. Among improved methods of appraising pupils are more accurate observational techniques, the measurement of personality traits, the appraisal of adjustment to home and school, and the use of multiple-aptitude tests. Some of these methods are partly in the experimental stage and some entirely so as in the case of projective techniques. Teacher-training centers such as those at Har-

vard, Yale, and the Universities of Michigan, Chicago, and Maryland have incorporated this view of comprehensive evaluation in their teacher-training programs.

Expansion of General Adult Education

Public schools, junior colleges, and extension divisions of universities especially are attempting to serve the expressed demands of adults for more education. Limited funds and shortage of trained personnel restrict the opportunities. Marked growth in number of adults served has been demonstrated repeatedly in communities which provide adequate leadership and funds.

Broad educational programs designed to serve the entire community are developing. A variety of educational leadership, materials, and activities is being provided to meet the needs of adults. Conventional subject matter is being supplemented by activities concerned with helping adults solve the problems of living in such fields as citizenship, family living, health, intercultural understanding, safety, and leisure.

Adult and Post-High-School Education

A survey completed during the year indicated that approximately 3 million out-of-school youth and adults were served by the public schools during 1947-48. Meantime four-fifths of all districts in communities of 2,500 and more provided some kind of adult education, although the amount in many cases was small. While some small communities had excellent programs, in general, few small schools reported activity. Education for adults was most commonly conducted through an evening school, although the variety of other organizational forms was increasing. Other activities reported in significant numbers were morning and afternoon classes, opportunity schools, open forums, film forums, radio broadcasts, conducted excursions, exhibits, supervised correspondence study, training-within-industry programs, workshops, community center activities, adult guidance services, community councils, and special programs for young adults. Vocational education was the most widespread, although the fields of recreation, high-school subjects, arts and crafts, Americanization, physical education and fitness, and music education also ranked high.

The Office began a State-by-State study to determine the extent to which secondary education is being furthered through the use of correspondence courses. A circular (Circular No. 309) and bibliography were published containing suggestions to those interested

in such courses, especially if they want to earn credits toward a diploma or degree.

Education for the Aging

The number of persons over 65 can be expected to increase greatly in the next 25 years. This change in age structure of our population will have profound effects on our society. Some of the problems created can be alleviated by education. Education for occupational changes, leisure time, health, changing family relationships, and additional guidance services will be needed. The Office of Education was represented on a committee of the Federal Security Agency set up to channelize information on various aspects—health, education, security, and the like—of the problem. As one outcome of the committee's screening of recent developments in this field, the Office prepared information related to the responsibilities of education in this growing area.

HIGHER EDUCATION

The great increases in college enrollments since the end of World War II have been carried chiefly by expansion of facilities of the existing colleges and universities. Significant, however, has been the tendency toward the establishment of new institutions. This tendency is reflected in the numbers of institutions included in the "Education Directory, Part 3, Higher Education," published annually by the Office of Education. The 1948-49 Directory listed 1,728 institutions, 40 more than in the previous year. Preliminary work on the 1949-50 Directory indicates that 75 or more institutions will be added. During the past few years more institutions of higher education have been established in the United States than in any comparable period in our history.

The institutions being established to meet the increasing demand for higher education are chiefly of two types. About one-fourth are specialized professional and technical schools and more than half are junior colleges. Large numbers of the latter take the form of the community college, an institution recommended by the President's Commission on Higher Education. The development of community colleges gives promise of making 2 years of education beyond the high school readily available to most young people, in an institution near their homes and where they can find programs suited to their needs at relatively low cost.

Need for Additional Plant Facilities

The increase in enrollments in the regularly established colleges and universities put a severe strain on the physical plant. The needs for additional plant facilities were met temporarily in most institutions by the use of surplus Federal property, the donation of which was authorized by Congress. The institutions are moving rapidly, however, to develop additional permanent buildings. A sample of 53 institutions, located in 32 States and accounting for about 14 percent of the total college enrollment, showed that permanent buildings costing approximately \$300 million had been completed or begun between September 1945 and July 1948. The needs of these institutions for building space, as stated in March 1947, constituted 18 percent of the 265 million square feet needed by 1,386 institutions which reported on space needs.

Organization and Control

In several States serious thought was being given during the past year to the reorganization of their plans for the control and the operation of State-supported higher education. State-wide surveys were completed recently in a number of States and planned in several others. Perhaps the most sweeping reorganization in recent years has been that in the State of New York which has, by act of the Legislature, set up a board of trustees for the control of the State-supported system of higher education.

A significant development in the organization of higher education was the formation of the Board of Control for Southern Regional Education, with headquarters in Atlanta, Georgia. Through this agency, a group of States in the South set up arrangements to provide educational facilities for their citizens in fields of study for which the State itself makes no direct provision. Thus, a State which has no school for veterinary medicine may contract, through the Board, with a public or private institution in some other State. The institution agrees to enroll a specified number of citizens of that State as students, in return for a payment of a specified sum of money toward the support of the institution. This agency may make possible economical arrangements whereby educational opportunities can be extended without duplicating costly facilities for small numbers of students.

Student Organization

The National Student Association, which held its first annual Congress in August 1948, is composed of representatives chosen by

the students in member colleges and universities. This association is interested in problems affecting higher education in the United States and in foreign countries. The student group has not previously been represented in national councils on matters affecting higher education.

Accreditation

The problem of the accreditation of institutions of higher education in the United States has for many years been perplexing. Although there is need for agencies that certify the quality of institutional programs, the rapid growth of such agencies has aroused protest from college and university administrators. The type of control exercised by some of the accrediting agencies has also been adversely criticized. In 1948, when the Association of American Universities discontinued its list of approved undergraduate colleges, the only Nation-wide list of accredited colleges of liberal arts was wiped out. To meet this situation the various regional accrediting associations were considering plans for the formation of a National Federation of Accrediting Associations. The hope is that ultimately such a body will be in a position to issue a Nation-wide list of accredited colleges and universities, based on reasonably uniform standards and criteria.

Studies of problems of accreditation in specialized fields have been carried on by several groups. In the nursing profession, a national committee has been at work to develop a rating of the various hospital schools and colleges that train nurses. A member of the staff of the Office of Education served as consultant to this group.

In the field of social work, a member of the staff of the Office of Education has been directing a national study, supported by funds supplied by the Carnegie Foundation for the Advancement of Teaching. One of its goals is the development of a national plan for accrediting institutions which prepare social service workers.

The Committee on Criteria for College Work in Home Economics of the American Home Economics Association, without going into an actual program of accreditation, has produced a book on home economics in higher education, intended to be a guide to institutions in setting up their programs. The chapters of this volume deal with the philosophy, curriculum, and administration of programs in home economics. The appendix contains a checking device which the college department can use in evaluating the aspects of the department and its program on the bases discussed in the book. Two members of the staff of the Office of Education have served as consultants for the committee which prepared the home economics volume.

Plans for improving the procedures for the accreditation of institu-

tions that prepare teachers were considered by the American Association of Colleges for Teacher Education and the National Commission on Teacher Education and Professional Standards of the National Education Association.

Activities of the Service

Though the latest Office bulletin on scholarships and fellowships available in institutions of higher education in the United States was published in 1936, the Government Printing Office reports that there is still a strong demand for it. The urgent need for up-to-date information resulted in the initiation of work on a new bulletin concerning available scholarships and fellowships.

A Specialist for College Business Management was added to the staff of the Division of Higher Education in April 1949. In addition to the usual consultative services, he began editing a handbook on principles of business and financial administration for colleges and universities, prepared in collaboration with a committee representing the various associations of college and university business officers.

STATE AND LOCAL SCHOOL SYSTEMS

State Studies

During the past year State-wide studies of education were completed in a number of States, including New Mexico, Indiana, North Carolina, South Carolina, and Georgia. A study of limited scope was completed in Texas. Special studies were completed in Arizona and California. In addition, the Governors' Conference sponsored a study of public elementary and secondary school education, published by the Council of State Governments under the title, "The Forty-Eight State School Systems." These studies served to call attention to many problems which seriously need attention and, in a number of States, helped to bring about at least partial solutions.

Changes in State Educational Structure

The State structure for education is a significant factor in developing a satisfactory educational program in any State. Changes in State structure however are usually made slowly regardless of the defects which may exist. While minor changes were made during the past year, only a few States made major changes in State structure. The citizens of Colorado adopted a constitutional amendment providing for the appointment of the chief State school officer by the State

Board of Education. The Texas Legislature took steps to eliminate the elective superintendent of education when the present term expires, and provided for the immediate election of a State board of education and for the appointment of a State commissioner of education.

To assist State and local school authorities with their problems of organization and administration and at the request of the National Council of Chief State School Officers, the Office of Education made a detailed study of the organizational structure of the 48 State departments of education and prepared for publication the manuscript "The Structure of State Departments of Education" (Misc. No. 10). Three additional studies, also requested by the Council, were initiated. For one of these, "Organization of State School Administration as Provided by State Laws," digests and analyses of State laws were prepared; for the other two, "Services of State Departments of Education" and "Administering Professional Personnel of State Departments of Education," inquiry forms were developed.

Provisions for Changes in Local School Administrative Unit Organization

The citizens in many States have continued to be interested in improving the structure of local school administrative units. Arkansas established provisions by law that will eliminate most of the very small districts of the State by 1950. Colorado and Missouri enacted laws providing for the reorganization of districts. Minnesota revised and extended its reorganization laws. Iowa, Illinois, and other States are continuing their program for reorganizing and enlarging local school administrative units.

Financing Education

There were three broad but distinct developments in the financing of education:

- (1) Many States further increased the proportion of school funds from State sources, the Nation-wide percentage at present being approximately 40 percent of the total.

- (2) The tax base was further broadened in many States, although approximately 60 percent of all public-school revenue still comes from general property taxes.

- (3) Many States continued to strengthen their equalizing or foundation programs. Indiana and Texas in particular revised their programs last year, providing more adequate and objective bases for defining needs and improving the equalizing features.

Most States are still studying the development of better measures for educational need. Some States have developed relatively valid and objective measures, while in others the measures are still rough or subjective. Some States are still struggling with the development of better measures of local taxpaying capacity. While most States still use assessed valuation regardless of variations in assessment ratios, several States have either improved their assessing plan or developed some more objective measures, such as an equalizing ratio or an index of taxpaying capacity.

Plant Needs

The increase in birth rate during the war years further complicated the problem of providing adequate school plant facilities which was already serious because school plant construction had been practically discontinued during the war years. An average increase in enrollment in the public schools of at least three-quarters of a million students a year for each of the next several years is expected. Because of the accumulative effect of births on school enrollments, attendance will continue to increase at least until 1958. To provide for this increased enrollment will require approximately 250,000 classrooms during the next 10 years. Another 150,000 or 160,000 classrooms will be required to replace obsolete facilities and probably another 40,000 for kindergarten and junior college pupils.

While some local school systems have begun systematic studies to determine plant needs and costs, many systems still do not realize the seriousness of the problem and have not developed any adequate plans for working out a solution. Few States have faced the problem realistically. Only a few have carried out systematic State-wide studies to determine where permanent school centers should be located, what buildings should be provided, and what plans should be developed to finance the needed school plant construction.

Because of the great variation in construction costs since 1930, dollar volume of capital outlay has little meaning unless it is related to schoolhousing space provided by the investment. Results from preliminary studies, and calculations based on enrollment increases, educational program expansion, and emergency replacements indicate that it will require a capital outlay investment of at least \$10 billion within the next 10 years to enlarge and improve physical plant facilities for public elementary and secondary schools. (See chart 6.)

Miscellaneous Developments

Three groups carried on cooperative studies during the past year. These include the Southern States Work-Conference on Educational

Problems, the Central States Conference, and the New England School Development Council. These studies represent efforts by schools and by State school systems in various parts of the country to coordinate their attack on common educational problems.

The officials in many States now realize that State laws and restrictions have placed such serious limitations on local tax levies for school purposes that local initiative and responsibility have been seriously handicapped. Some States are working to remedy this situation.

Consultative services were rendered by Office staff members on problems of State and local unit organization, school plant planning and management, school finance, and pupil transportation, to State departments of education, workshops of State universities, State school boards associations, and local school administrative units in 22 of the 48 States.

The staff also prepared for publication 6 articles on educational legislation, 24 articles on educational school plant planning and management; the following Office bulletins and circulars: "Educational Leadership in Action", "Selected Bibliography on School Finance" (Bulletin 1949, No. 14), "Records and Reports for Pupil Transportation" (Special Series No. 2), "State School Plant Assistance," "Bibliography on School Plant Management," "Improving School Custodial Service" (Bulletin 1949, No. 13), and Parts I and II of the "Educational Directory, 1948-49"; and for outside publication: Three chapters of American Association of School Administrators yearbook on "American School Buildings"; five chapters for "Guide for Planning School Plants" by the National Council on Schoolhouse Construction; chapters on pupil transportation for State educational surveys in Indiana and New Mexico; and a survey report for the Arizona Advisory Council on Education, on the structure, organization, and services of the State educational agency entitled "Improving Education in Arizona."

The Office also worked with State education staff members and with civic groups in analyzing programs of legislation and finance for the education of exceptional children and youth.

PUPIL PERSONNEL SERVICES

Particularly significant in pupil personnel services was the issuance in April 1949 of a manual on "Counselor Preparation" which was prepared jointly by the following organizations: American College Personnel Association, American Psychological Association, National Rehabilitation Association, National Vocational Guidance Association, Office of Education, National Association of Guidance Supervisors, U. S. Employment Service, and Veterans' Administration.

This is the first time in the history of the guidance movement that a joint enterprise on such a large scale has been completed. It is felt that the manual will be especially valuable in defining areas of training and qualifications basic to developing effective counselors.

Supervised work experience for pupils in areas of training not already covered by federally supported vocational programs was recognized as having definite educational value when properly supervised and integrated into the instructional program.

The relation of guidance services to the rest of the educational program was a topic of increasing concern. Books such as "Education in a Divided World," by Dr. Conant, President of Harvard, and "Education for all American Children," by the Educational Policies Commission, and many lay articles emphasized this point. Guidance services are a central theme of the Life Adjustment Education program (described elsewhere in this report); and texts on elementary and secondary education have more and more employed guidance techniques to relate teaching to the characteristics and needs of individual pupils. These emphases have in turn pointed to the necessity for a conception of guidance as a coordinated service if it is to do all that is expected of it.

International interest in guidance services is growing. Foreign visitors, including an official delegation of German educators, included guidance work as an object of investigation. Calls for field help in Brazil, the Philippines, and other countries were received. UNESCO has expressed an interest in adding this kind of service to its program. The International Labor Organization adopted a recommendation on vocational guidance for the benefit of its 61 member nations.

Another trend has been toward raising standards of practitioners and protecting the public from unethical practices. Notable progress was made by the Ethical Practices Committee of the National Vocational Guidance Association. Certain other professional organizations are experimenting with qualification requirements. Public employment agencies are resorting more and more to certificating practices. In May, the National Vocational Guidance Association published its first approved list of guidance services under a group of minimum standards of the Ethical Practices Committee.

With the assistance of Office staff, several groups made efforts to define the counselor's duties in terms of competencies and the training required to obtain these competencies. Resulting from these efforts, a report of the National Vocational Guidance Association and two of a series of eight reports from the National Association of Guidance Supervisors were published. The American Psychological Association and Counsel of Guidance and Personnel Associations did preliminary work on similar reports.

Two studies, one referring to summer sessions and the other to regular sessions, were published by the Office to describe work being offered in counselor training institutions. Many States employed new counselor training staffs, often using Federal funds in part, and the new offerings embodied the developing theories. The total effect is a distinct advance in the degree of professional competency expected of guidance counselors.

Evaluative Criteria, Form B, and a manual of directions, were published during the year, a joint effort of State officials and Office of Education staff members. Guidance programs in many schools were evaluated by this instrument. Meanwhile, the Cooperative Study of Secondary School Standards completed a tentative form of another evaluation tool. The trend is toward measuring guidance services by standard criteria, with emphasis on the stimulation rather than on the grading of provisions. The quantity of services reported in another study indicated that the number of schools having counselors had increased nearly 100 percent in the past 10 years.

Both national and State activities related to the extension of social work education brought about joint planning and studies by a number of professional organizations and Government agencies during the year. The status of visiting teacher services in the public schools, accreditation of schools, and the certification requirements for school social workers present pressing problems which educators must solve in the development of these services. The Office began a national survey to get information on the extent to which these services are available in the schools.

A statistical report recently issued by the Office indicates that in 1945-46 only about one-sixth of the secondary schools in the United States claimed to provide counseling services to pupils. Fifty-seven percent of the 4-year high schools employed a staff of six or fewer teachers. In schools of this size it is difficult to employ full-time counselors. This fact has pointed up the need for more participation by teachers and administrators in counseling. To meet this need during the past year, more emphasis was placed on promoting in-service training of staff members in child study techniques.

Programs of Instruction

GENERAL EDUCATION

Individual Pupil Growth

The child-development approach to elementary education centers attention upon individual guidance as a basis of instruction. Among

the many evidences that child development is being accepted as a basic approach to instruction are the following:

1. A mounting volume of scientific literature and accounts of successful school practices have centered attention upon the influences affecting children's attitudes and social behaviors.
2. There is increasing cooperation between home and school in the continuous protection of children's physical health and in the guidance of children's social behaviors and learnings.
3. Adjustments are being made in the school building, its equipment, and the outdoor play areas to aid both learning and social cooperation.
4. Continuous appraisal and adjustment of the school curriculum are being made to improve the experiences and guidance services of all children, both normal and exceptional, and to make possible more cooperative relationships between parents and teachers.
5. Such extended community facilities as children's libraries and museums, supervised play centers, and summer camps are providing new opportunities for children's development.
6. There has been a rapid growth of specialized services for exceptional children and youth.

With the increased emphasis on the child-development approach to curriculum problems, teachers carry a heavy responsibility for planning children's school experiences to meet individual pupils' needs. How is the course of study different because of such emphasis? What happens to "subjects" such as arithmetic, geography, and spelling? How can teachers and parents measure children's growth? To answer these and similar questions, the Office of Education obtained accounts from school experience and published "The Place of Subjects in the Curriculum" (Bulletin 1949, No. 12).

To emphasize the school's central purpose of promoting children's growth and development, the Third Conference of Leaders in Elementary Education agreed on a resolution calling on all the constituent associations to promote the widest possible understanding of this point of view.

Almost without exception, studies of what parents want for their children bring out their belief in the school's responsibility for broad social, physical, and intellectual growth. To say simply to parents of prospective students what the school's aims are, the Office published "Preparing Your Child For School" (Pamphlet No. 108). To help parents and schools work together in analyzing, recording, and reporting children's growth in school enterprises, the Office analyzed school systems' current types of report cards, and made recommendations based on the analysis in an Education Brief called "Periodic Reports of Children's Progress."

Life Adjustment Education

During 1948-49 there were many evidences of a widespread desire to improve the high-school curriculum in order to serve all American youth. A group of distinguished lay leaders formed a National Citizens Commission for the Public Schools. Members of the Commission did not state a special concern for any particular aspect of public-school activities, but especially pertinent to secondary schools were Chairman Roy E. Larsen's comments: "We must all decide what results we want from our public schools, and then we must begin at once to take the necessary steps to obtain them."

There was emphasis upon the provision of consultant services for schools as illustrated by extension divisions of State universities and teacher-training institutions, the Horace Mann-Lincoln Institute of School Experimentation at Teachers College, Columbia University, and the formation of the Joint Council of Economic Education at New York University. The Committee on Human Development of the University of Chicago reported broad-gauge research studies focused upon character in adolescents and upon the impact of social classes on adolescents.

Financed by the William Volker Charities Fund, Inc., the Citizenship Education Study in Detroit, Mich., published materials helpful to teachers. Supported by the National Better Business Bureau, the Consumer Education Study completed a series of bulletins, begun in 1942, for high-school pupils and teachers. These publications were designed to develop more discriminating consumers, but their preparation provided also an excellent example of harmonious and effective cooperation between education and lay citizens.

With many different approaches State departments of education encouraged the improving of the high-school curriculum. In Pennsylvania, committees of teachers gathered effective practices from the schools of the State and published them under the direction of the department of public instruction in a manual called "Educating for Citizenship." In the State of Washington, a bulletin entitled "Life Adjustment Education" was similarly prepared. In Illinois, 32 lay and professional organizations cooperated with the State department of education in sponsoring a State-wide revision of the high-school curriculum. In Michigan, the cooperative agreement between secondary schools and colleges was extended and many high schools pioneered in education for family living. In Maryland, there was a vigorous renewal of the State-wide effort to improve general education in junior high schools. Characteristic of many State education department activities was an effort to secure the participation of lay citizens in setting up educational goals.

In July 1948 the Office of Education directed a conference on Life Adjustment Education attended by leaders from Indiana and six adjoining States, at Indiana University, and in October 1948 a conference for State and local leaders in Washington, D. C. In April 1949 the Commission on Life Adjustment Education for Youth, which is an advisory body to the Office, held a one-day conference in Washington attended by representatives of national lay organizations.

Chief State school officers and directors of vocational education were invited to set up State committees to stimulate Life Adjustment Education. The Office compiled suggestions for State committees in a circular entitled "Getting Programs of Life Adjustment Education Under Way," and suggestions for local school staffs in a circular called "Developing Life Adjustment Education in a Local School."

With the cooperation of the American Technical Society, a non-profit publishing company, wide distribution was given to two pamphlets prepared by members of the Office staff: "High school—What's In It For Me?" and "A Primer of Life Adjustment Education." Many States and local educational agencies held conferences and prepared Life Adjustment publications of their own. At the close of the year, life adjustment committees had been appointed in 12 States, and 3 of them had selected a few schools to cooperate in developing appropriate programs for all youth.

At their April 1949 meeting, members of the Commission on Life Adjustment Education for Youth agreed that if, in the promotion of their program, they should be limited to a single point of attack, their emphasis would be upon a continuing study of the pupil with the supporting guidance services. Other emphases which they considered of great importance were upon maintaining and upgrading skill in the tool subjects, utilizing the industrial and practical arts, encouraging supervised work experience, educating the citizen of and for a free society, developing intelligent consumers, and improving home and family living.

The Office made progress in the study of characteristics of youth. Field work consisted of planning and carrying out the measurement and evaluation of a group of 14-year-olds and a group of 17-year-olds in cooperation with the School of Education of Indiana University. One aspect of this general project resulted in the publication of a bulletin, "Intellectual Abilities in the Adolescent Period" (Bulletin 1948, No. 6).

In cooperation with Delta Pi Epsilon, a graduate research fraternity in business education, the Office made a study of the business situations to which youth must adjust satisfactorily if they are to avoid making poor judgments and unwise economic and business decisions.

College Programs of General Education

Interest in programs of general education at the college level continued to be high. An increased time allotment for general education was advocated by those interested in certain of the professional fields and also in preprofessional curriculums such as those for medicine and law. The engineering profession put increasing emphasis on the broadening of engineering education, on the inclusion of more general education and on more work in the humanistic and social studies. In some cases this is being accomplished by increasing the curriculum to 5 years and in others by replacing some of the technical and professional subjects with humanistic-social subjects.

The Journal of General Education established by Earl J. McGrath, then dean at the University of Iowa, is continuing publication under the sponsorship of the University of Chicago. The series of volumes dealing with the relation of the various subject-matter fields to general education is rapidly approaching the completion of its publication schedule. The faculty members of many colleges have been revising their curriculums to make better provision for general education.

INSTRUCTION IN SPECIAL AREAS

Social Sciences

In the social sciences there was an apparent trend toward larger and broader units of instruction at all grade levels, from elementary schools through universities. There seemed to be an increased emphasis on pupil participation, for example, in pupil-teacher planning, student government, and forum activities, to give opportunities for social development. Forward-looking elementary schools continued to develop social studies units which touch on the direct experience and interest of children; through activities designed to help them understand the problems in the unit, pupils acquire learnings in language arts, music, science, and other school subjects.

Junior high schools in increasing numbers experimented with the core curriculum. In this curriculum a maximum use is made of problems and experiences; the language arts, fine arts, physical sciences, and social sciences are taught in situations which add meaning to the experience or help in solving a problem. In senior high school curriculums a few schools developed general education programs drawing heavily on the social sciences and language arts, and a larger number of schools broadened their traditional courses in civics, history, and social problems to include social science materials from related fields.

Colleges and universities continued to experiment with broader approaches to the social sciences as part of a general education program. Departmental social science groupings replaced traditional departments in four-fifths of the teachers colleges; the same trend was observed in one-third of the land-grant colleges and State universities.

Education for intelligent citizenship continued to be recognized as a major goal for social science instruction in the schools. A better understanding of America's role in world affairs was a point of special emphasis, as schools attempted to carry out the suggestions made in "Education for International Understanding in American Schools."¹ The Educational Policies Commission issued "American Education and International Tensions"² which called for development of an understanding of the principles and practices of totalitarianism, communist and fascist, as ways of life which differ from democracy.

Emphasis on economic education promises to be increased in schools and colleges as the result of (1) investigations which were being conducted by the American Economic Association and the Catholic Economic Association; and (2) the formation of a national organization, the Joint Council on Economic Education, which sponsored three workshops on economic education.

Stimulated in large part by recent publications, new emphasis was given to conservation education as a basis for peace and improved living standards for all peoples. Intercultural education tended to become international in its emphasis on human rights for all people of all races, religions, and cultures. The study of atomic energy, its development and control, entered the school curriculum. These national and global problems did not, however, preclude interest in other problems closer to home; there was also increased interest in the social sciences in education for home and family living.

The reception given to Stuart Chase's "The Proper Study of Mankind," a notable effort to explain and relate the social sciences to contemporary social problems, indicated a general school interest in the role of the social sciences in today's world.

The Office of Education established a social science section in the Division of Higher Education during the fiscal year 1949.

Specialists in the social sciences worked to improve instruction in citizenship, world understanding, atomic energy, and the teaching of Government, economics, history and geography, consumer education, and conservation. The Office staff approached these, not as isolated subjects, but as critical points to be planned for within the total social studies curriculum.

¹ National Education Association, 1948.

² National Education Association, 1949.

Social science specialists worked with teachers in workshops, and at conferences at the University of Minnesota, New York University, Syracuse University, the University of West Virginia, the University of Nebraska, the University of Washington, and Middlebury College.

Several of the publications prepared by specialists for the social sciences are concerned with the whole social studies program. A descriptive analysis of courses of study in elementary social studies was prepared along with a statement of trends and recommendations, "Social Studies Courses of Study," (Selected References Series, No. 17, April 1949, Division of Elementary Education.) Four annotated bibliographies of professional materials for social studies teachers of the various grade levels were prepared: "Teaching the Social Studies," Selected References Series, No. 18, May 1949, Division of Elementary Education; "Selected Sources of Current Teaching Materials for Social Studies Classes," "Teaching the Social Studies, A Bibliography of Periodical Materials," and "A Selected Professional Library for the Social Studies Teacher," Circular Nos. 301, 302, 303, March 1949, Social Studies Series, Division of Secondary Education.

The Office of Education placed strong emphasis on citizenship education through a program known as Zeal for American Democracy. Activities of the Office were coordinated by an Interdivisional Committee.

In February 1949, the Office sponsored a conference for representatives of the learned and professional organizations to consider the establishment of work conferences for college instructors of teachers of social science. The purpose of the conferences was to focus the attention of institutions preparing teachers on the kinds of skills and information prospective teachers need to educate youth for American citizenship. The conferees felt this step to be of so great importance that they went on record as endorsing it with high priority.

At least 14 States developed programs, for which the Office extended all help requested and available. Sample State programs follow:

Pennsylvania produced a new manual, "Education for Citizenship," which contains a list of recommended practices in the teaching of democracy which were gathered from the schools of the Commonwealth.

Nevada established community committees, with high-school students included, to promote local programs of Zeal for American Democracy.

North and South Dakota promoted the "Young Citizens League" which constitutes a vehicle for teaching American ideals and supplies apparatus for putting representative government into practice in everyday school activities.

The Office of Education cooperated with three national nongovern-

mental organizations in conducting the second annual Voice of America contest. 250,000 high-school students throughout the land competed in delivering original essays on the topic, "I speak for Democracy." Recordings of winning talks are lent by the Radio Script and Transcription Exchange Service of the Office.

Publications of the Office particularly concerned with citizenship education were:

Pointers—a news letter and a supplement to keep school people aware of developments in citizenship education programs throughout the Nation.

How Democratic Is Your School?—a pamphlet containing a discussion of the principles of American democracy and checklists on democratic practices for secondary school teachers and students.

With Liberty and Justice for All—a bulletin containing a series of units describing how democratic government in this country came about, of practical value for the teacher of upper elementary grades. (Bulletin 1948, No. 15).

Education for Freedom—a bulletin summarizing State requirements for instruction concerning the Constitution, American history, and matters relating to American freedom. (Bulletin 1948, No. 11).

What is Democracy? America's Schools Are Writing the Definition—a reprint by the Office of a series of articles from the *Christian Science Monitor*, which describe what schools are doing throughout the Nation to develop better citizens.

Specialists for the social sciences took a major part in projects of professional and learned organizations whose work affects the social science field. The organizations include: American Economic Association, American Political Science Association, National Council for the Social Studies, National Council of Geography Teachers, Association for Supervision and Curriculum Development, American Education Fellowship, Committee on International Relations of the National Education Association, and Joint Council on Economic Education.

A staff member represented the Office on the steering committee which organized the Estes Park (Colo.) conference on the role of higher education in international understanding, and the Brookings Institution seminar on teaching of international relations at Lake Forest (Ill.).

A sampling study dealing with offerings and registrations in the social studies during the school year 1946-47 makes possible the determination of trends in this field since 1933-34. This study reveals an increased emphasis on United States history. It also shows that United States history courses almost always provide for instruction in current affairs and in American government and the Constitution. Substantially all students, both in junior and in senior high school,

are enrolled in courses in United States history, but the range in hours of instruction devoted to this subject is wide.

Another study, "Requirements and High School Students' Programs," concerned with high-school graduation requirements and the actual 4-year programs of representative students from schools having good programs in civic education, showed that although only 11 States required 3 or more units—i. e., years of instruction in social studies, the graduates, whether in a college-preparatory, vocational, or general program, tended to average about 3 units in social studies, 1 of which was in United States history.

Members of the staff began studies, designed to improve the teaching of Government economics, history, and geography, at the request of the American Political Science Association, the American Economic Association, and the Catholic Economic Association. The Office is cooperating with the National Council for the Social Studies on another study.

Home and Family Life Education

The Office of Education made studies with the aid of staff members in 14 colleges to determine the emphasis now being given to home and family life education as part of the general education program for all home economics students and for other college students. Plans were made to strengthen the programs in these colleges so that they will contribute more effectively to the kind of wholesome family life which is basic to successful living in a democracy.

At three of the four regional conferences for home economics supervisors and teacher trainers called by the Office, committees worked on the problem of increasing the contribution of home economics to education for home and family life for all high-school pupils and for adults. At the fourth regional conference, supervisors and teacher trainers worked on ways of evaluating progress toward some of the objectives of education for home and family living. Special assistance was also given to one State conference of city supervisors and teachers on the teaching of family relations.

Conferences were arranged in the southern and southwestern sections of the country for college teachers of family relations. Course objectives, essential concepts, experiences which might help college students understand themselves and develop in their family, social, and community relationships, and the teacher's role in family relations classes were considered by these groups. Reports of the conferences and a "Progress Report of a Cooperative Study of the Teaching of Family Relations on the College Level" were completed.

The Office also gave special attention to methods by which home

economics teachers and high-school, college, and adult students could acquire a greater understanding of the ways children develop and the factors in home and family life which promote wholesome growth. A national conference of State and city supervisors of home economics, teacher trainers, college teachers of child development, and high-school homemaking teachers was called. They evaluated present practices in high schools and colleges and made suggestions for strengthening the teaching of child development in the high-school homemaking program.

To meet the many requests from lay organizations and schools for information on how to improve parent-teacher relationships, the Office published "Working With Parents" (Bulletin 1948, No. 7).

Science and Related Subjects

SCIENCE

At their invitation, the Office assisted a few school systems in reorganizing science courses and in planning desirable alternatives to the science courses long accepted as useful primarily to students who plan to complete college work. Consultative help was given to colleges and universities, where workshops and institutes were arranged on problems of science teaching. To aid in such work the Office prepared a bibliography of references on science education. The Office assisted schools to make science a part of the elementary school instruction, to help science teachers so to modify course content and methods of teaching that the needs of all youth may be served, and to counsel with college science teachers on problems related to the development of science courses especially suited to purposes of general education.

In elementary education, emphasis was placed on the importance of relating the experiences of children in elementary science to the total elementary school program. The Office cooperated with more than 100 teacher-training institutions on the improvement of teacher training in science for elementary school teachers. The Office also assisted in-service education programs in 19 major cities, 10 counties, 6 State departments, 7 colleges, and at meetings of 14 State or national professional teachers' groups.

A bulletin entitled "Teaching Science in Rural and Small Town Schools" (Bulletin 1949, No. 5) was prepared to help teachers in rural communities.

The Office conducted studies and cooperated in the preparation of the reports of studies conducted jointly by the Office of Education and by national organizations, as follows:

- (1) Office of Education—"Inquiry Into the Teaching of Science, Grades 7-12 (1947-48)."

- (2) American Association for Colleges of Teacher Education—"Inquiry into Science Offerings and Facilities in Teachers Colleges."
- (3) National Association for Research in Science Teaching—"Needed Research in Problem Solving."

CONSERVATION

To coordinate the planning of projects related to conservation education, an Interdivisional Committee on Conservation Education was established in the Office.

The Committee assisted the U. S. Forest Service, the Junior Red Cross, and other agencies, in the evaluation of motion pictures, pamphlets, teaching units, and other materials prepared for classroom use, and suggested pupil projects and activities which could be used to develop fundamental concepts and personal responsibilities for conservation at all levels of the schools.

With assistance from the Office, the National Committee on Policies in Conservation Education prepared a selected bibliography on conservation for use by pupils and teachers at various grade levels. This bibliography brings to the attention of teachers and supervisors references not only on the more limited aspects of conservation, such as animal life, plant life including forestry, water, minerals, and soil, but also on the broad problems of conservation.

AVIATION

To encourage teachers to utilize surplus aviation war equipment for classroom demonstration, the Office produced a "Bibliography of Articles Concerning Conversion of War Surplus Equipment for Civilian and School Use."

MATHEMATICS

The Office made a résumé and analysis of recent elementary courses of study in arithmetic, together with suggested references for teachers.

Atomic Energy

The Interdivisional Committee on the Educational Implications of Atomic Energy was created in the Office of Education to help meet the need for educational services which will bring to the public an awareness of the problems arising from the development of atomic energy, and an understanding of their significance which will assist in the formulation and support of sound national policies. In its work the committee maintained close liaison with the U. S. Atomic Energy Commission.

The Committee's functions are: (1) Coordination of the selection and collation of data on school and college courses involving atomic

energy developments; (2) service as a clearing house for material related to the educational implications of atomic energy developments; (3) cooperation with other educational groups and civic-minded organizations in planning, initiating, and, where appropriate, directing conferences, workshops, and exhibits; (4) cooperation with appropriate agencies to develop a public awareness and understanding of the potentialities of atomic energy for our national welfare and security and for our personal health and happiness.

A survey of colleges and universities to determine the nature and extent of their activities in developing instruction about atomic energy and its significance revealed that relatively few had made any significant curricular changes since the advent of the atomic era. Of those that had, it was found that the technological schools had continued the prewar trend in increasing the social science requirements in their programs, while the liberal arts colleges had increased their requirements in the physical sciences. The findings of this survey were summarized in a special issue of *HIGHER EDUCATION* devoted to atomic energy developments.

A similar survey among secondary schools indicated that only in a few school systems had careful attention been given to the educational implications of atomic energy. Some physical science teachers had incorporated instruction relating to atomic energy in their courses, but since these courses reached only a minority of the pupils, the broad educational needs were not well served. The survey revealed teachers' needs for information about the opportunities opened up by atomic energy developments—industrial, agricultural, medical, research, and vocational—and for suggestions for coordinated programs, techniques, activities, and instructional materials. Many such suggestions were incorporated in a supplement to the March 1949 issue of *SCHOOL LIFE* entitled "Atomic Energy Here to Stay."

Five bibliographies on atomic energy and its educational implications were prepared. These are: (1) A Bibliography of Bibliographies on Atomic Energy (for teachers, students, and adult discussion groups); (2) Introductory Bibliography on Atomic Energy (for teachers, students, and adult discussion groups); (3) Teaching Aids in Atomic Energy (bibliography for teachers); (4) Inexpensive Books and Pamphlets on Atomic Energy; (5) An Annotated Bibliography on Atomic Energy for Teachers and Students.

The Committee revised three tests for evaluating the results of Atomic energy education in secondary schools. The tests were originally prepared by a Committee of the College of Education, University of Illinois. The revised versions were sent to chief State school officers for such distribution as they care to make, and to State educational journals for possible publication.

Health and Physical Education

The Office of Education directed its efforts toward relating all aspects of school health and physical education to the growth and developmental needs of children in a total educational program. Particularly significant was a series of conferences held in five Western States on health and physical education in the elementary schools. In all, 85 conferences, involving school administrators, supervisors, teachers, specialists in health and physical education, and public health personnel, were held. These conferences stressed local and State problems and programs.

"Playground Equipment That Helps Children Grow," Education Brief #16, was prepared. This publication stressed the need for developmental equipment and gave suggestions for selecting, constructing, placing, and maintaining equipment.

Several studies were carried on in cooperation with national organizations. Among the subjects were: Interscholastic athletics for children of elementary and junior high school age, girls' athletic programs, and the status of health and physical education in elementary schools.

The Office gave special attention to the improvement of teaching in health education and to a determination of the status of programs in health instruction in the secondary schools. A report on "Institutions Offering Professional Education in Health Education, Physical Education and Recreation" was completed. The report of the Regional Demonstration Workshop on Teacher Education for Health in Secondary Schools, sponsored by the Office, was issued.

The first regional conference among Negro colleges for teachers of health education, sponsored by the Office of Education, was held March 1949, at Virginia State College, Petersburg, Virginia. A conference on camping and outdoor education was called by the Office to consider the national significance of such programs to education.

The Office published a revised classroom height-weight chart and prepared two bulletins on teacher education for health: "Teacher Education for the Improvement of School Health Programs" (Bulletin 1948, No. 16) and "Report of the Regional Demonstration Workshop on Teacher Education for Health in Secondary Schools."

The Office sponsored, with the Public Health Service and the Children's Bureau, a conference on Mental Hygiene in Schools and Teacher-Education Institutions. Fourteen consultants attended the conference; their recommendations on needs and projects to be carried out should result in the development of a broader program for the Federal Security Agency in the field of mental health.

Additional study was made in the use of the Wetzel Grid—a method

of graphing the growth of a child—as a means of pointing out areas in the country where children have health problems.

In many schools of the country the instructional phases of health education are the direct responsibility of the science teachers. The Office therefore worked to secure a functional integration of units on personal and community health into the curriculums in general science and biology.

Library Services

Libraries are essential in programs of instruction and self-education for children, youth, and adults. In the library field, a number of major developments took place during the 1949 fiscal year. One was the marked progress in sound planning to achieve adequate library service in schools, colleges, and communities. As part of their plans to improve elementary and secondary school libraries, State supervisors and other educators worked on the evaluation of these facilities and their relation to the curriculum.

Rural sociologists and librarians organized the Northern Great Plains Library Planning Council to work for adequate library service in that large, but sparsely populated, region. Regional planning was also evidenced in the creation of the Midwest Interlibrary Corporation, a cooperative undertaking of libraries for the acquisition and economical storage of research materials.

Much attention was paid to library legislation, a necessary step in any long-range planning. Interested American Library Association groups conducted a Library Legislation Institute, participated in by public administrators, political scientists, economists, and librarians. Organized efforts by lay groups and librarians were rewarded with the passage of legislation which created a State library agency in the sole remaining State without one.

Another major development during the year was the enlarging of the conception of what constitutes "library materials." In increasing numbers, public libraries, college libraries, and school libraries, as agencies for the dissemination of information, continued the trend toward the use of all media of communication, not the printed word alone.

Another major development concerned the recruiting and training of the library staff. To attract suitable persons to the profession, many State library associations, individual libraries, and library schools put on intensive campaigns to interest high-school and college students in library work as a career. Notable changes were also made in professional library training programs. Nearly two-thirds of the library schools moved towards placing instruction in library methods

on the undergraduate level and reserving for graduate study those courses in library science which prepare librarians for positions involving professional leadership and scholarship.

The Office of Education participated in many of the major library developments during 1948-49. Among the States assisted were: Alabama, Arkansas, Connecticut, Florida, Louisiana, Massachusetts, Mississippi, New Jersey, New York, Tennessee, and Washington. Aid was also given on the revision of the library portion of the Evaluative Criteria of the Cooperative Study.

The Office assisted in the planning for library extension and improvement not only by providing much basic data, but also by organizing and conducting a conference of State library agency officials and library training specialists. This work conference made recommendations regarding the standards to be applied to the operation of large administrative units of library service in areas now wholly lacking such service. It also formulated the guiding principles for the training of workers to serve in such areas.

For the use of college and school administrators, the current trends and problems in professional library education were analyzed and the results published in the Office periodical, *HIGHER EDUCATION*. This survey showed that library schools were in the process of revamping courses and curriculums in order to put the study of the scholarly and professional aspects of librarianship on a strictly graduate level.

Sound planning in the field of college and university libraries was aided by the completion of a Nation-wide survey for the academic year 1946-47. The facts on resources, services, and expenditures will furnish part of the basis for studying the adequacy of these libraries to support the instructional programs of their institutions. Another basic survey completed showed the trends from 1945 to 1948 in the resources, uses, and expenditures in public library systems of cities with populations of 100,000 or more.

Audio-Visual Aids

FILMS

Increased teacher interest in the use of visual methods and materials was probably the most significant development in visual education during the fiscal year 1949. Thousands of schools have purchased projectors and other equipment since the war, and with such equipment now available teachers sought help and guidance in its use. The Office of Education, for example, received more than 18,000 such inquiries in 1947-48 in contrast to only 5,000 during the preceding year.

This increased teacher interest was coupled with a healthy growth in teacher initiative and responsibility at the local school level with less and less reliance being placed on the visual education "experts." Visual aids became an accepted part of the school program and the concern of all teachers rather than that of visual education specialists only.

The Office published (1) a selected bibliography of motion pictures on democracy, (2) a summary of how to obtain the motion pictures and filmstrips of all Government agencies, and (3) a State-by-State directory of 897 16mm film libraries.

In an attempt to answer the much disputed question of whether schools have projection equipment, the Office conducted a survey of public secondary schools and found that more than 80 percent of them, rural and urban, had 16mm sound projectors.

Sales of Office of Education films increased slightly over the previous year. The Castle Films Division of United World Films Inc. continued to sell the films under a contract awarded by the Treasury Department. During the 7½ years since the first films were released, nearly 100,000 prints have been purchased by schools and colleges, industry, and other educational users. Since 1944, the Office has collected a royalty on film sales, and by June 30, 1949, a total of \$234,580 had been returned to the U. S. Treasury.

TABLE 3.—U. S. Government films sold under auspices of Office of Education

Agency	Total	Number of—	
		Motion pictures	Filmstrips
Total.....	2, 013	1, 309	704
Office of Education.....	899	467	432
Department of the Navy.....	612	436	176
Department of Agriculture.....	150	150	
Department of the Army.....	85	75	10
Department of the Air Force.....	71	41	30
Office of Inter-American Affairs.....	68	68	
Coast Guard.....	59	13	46
Office of War Information:			
Overseas Branch.....	10	10	
Domestic Branch.....	32	32	
Public Health Service.....	12	8	4
Civil Aeronautics Administration.....	7	1	6
Fish and Wildlife Service.....	4	4	
Department of State.....	2	2	
Office of Small Business.....	1	1	
Housing and Home Finance Agency.....	1	1	

Perhaps the outstanding visual education service performed by the Office during the 1949 fiscal year was its facilitating the release, for educational purposes, of the films of the Department of the Army, the Office of Inter-American Affairs, the Overseas Branch of the Office of War Information, the Department of State, and the United States

Coast Guard. At the end of the year, the Office of Education was handling 2,013 motion pictures and filmstrips of 15 different Government agencies.

The Office of Education, at the request of the Navy Department, is carrying on several evaluation projects in selected universities on the use of audio-visual training aids in Navy training programs; and at the request of the Public Health Service, is supervising the production of a motion picture on mental health. These professional services being rendered by the Office for other Government agencies were recognized and approved by the Hoover Commission.

RADIO

As a result of the effort to bring the advantages of instruction by radio to all schools, 44 new FM stations on the 88-92 megacycle band, set aside by the Federal Communications Commission for education, were added this year. Radio workshops and training courses in utilization invariably preceded the installation of these stations, which are located at universities, colleges, and in school systems in every section of the United States. State, county, and city directors of audio-visual education continued to establish new divisions of radio and television under competent direction in their school systems. A comprehensive study of "Educational Broadcasting in the United States," including television, was completed by the Office for UNESCO; it will be published as part of a larger volume describing such activities of all member nations.

Scripts, transcriptions, and printed teaching guides were distributed to schools and colleges for their use on a loan basis in cooperation with the Federal Radio Education Committee. Nearly 12,000 such scripts, and 4,000 transcribed programs, were lent for classroom use and for rebroadcast over educational stations; the latter represented an increase of 25 percent over the 1948 number. Distribution by the Office of new radio and television bibliographies, guides, and related publications reached the quarter-million mark, compelling evidence of the increased use of radio, recordings, and the new use of television for instructional purposes. It is estimated that more than 150,000 teachers are using radio and recordings in their daily work. They receive a regular service of the *FREC BULLETIN* produced by the Office of Education.

Professional Education

In professional education, in addition to teacher education, activity was confined chiefly to the health professions, social work, and

engineering. In the last-named, effective cooperation was maintained with the American Society for Engineering Education through the activities of the Office specialist in engineering education, who has served during the year as a member of the Society's National Council, as chairman of the National Capital Area Section, and as a member of eight national committees.

An Office staff member directed a Nation-wide survey of social work education, covering historical development, present status, and needs, with respect to the selection, preparation, employment, and salaries of individual workers, and with respect to coordination among schools, professional accrediting organizations, and employment agencies.

The Office sponsored a study of premedical education for Negroes to discover reasons for the low level of achievement of Negro students on the Medical Aptitude Test and to suggest methods of improving educational programs so that Negro students will be admitted to medical schools in greater numbers.

The Associate Chief for Education in the Health Professions directed the activities of the Committee on Teaching, American Association of Dental Schools. This committee prepared a report on recruiting, preparing, and improving dental teachers. The committee also sponsored the preparation of a 44-page report on teaching orthodontics to undergraduate dental students.

The Associate Chief for Education in the Health Professions continued his participation in the Pharmaceutical Survey as assistant director in charge of curriculum studies.

Achievement of Veterans as Students

Studies of student achievement in many widely scattered colleges throughout the country have consistently shown that veterans have tended to excel nonveteran students in grade-point averages. Since the veterans comprise almost half the student body, their high scholastic attainment raised the quality level of work done by the entire student body. The testimony is almost universal that, as a result of veterans in their classes, professors now have the ablest and most diligent group of students they have ever taught. The investment the Federal Government has been making in financing the continued education of veterans is paying immediate dividends in the strengthening of the general level of student achievement in colleges and universities. It cannot be doubted that for the next 30 or 40 years the country will receive enormous dividends through the high quality of leadership of those veterans who have had their education financed by the Federal Government.

Groups With Special Instructional Problems

ADULT ILLITERATES

A recent Office of Education study indicated that probably less than one-eighth of the school systems in the Nation were conducting literacy education classes. Another study showed that the greatest shortage of suitable reading materials for adults was in the fields of citizenship, parent education, homemaking, and health. In an effort to meet part of this need, the Office project in literacy education completed its scheduled production of instructional materials for adults of low literacy levels. It was planned to have them published at low cost for general distribution. The published materials would comprise a packet consisting of four basic primers, four accompanying workbooks, one language workbook, one arithmetic workbook, one testing workbook, one teachers' guidebook entitled "Let's Help the Ten Million," and six supplementary pamphlet readers.

DISPLACED PERSONS

Approximately 50,000 displaced persons came to the United States during the year under the provisions of the Displaced Persons Act of 1948, which authorized the admission of 205,000 by June 30, 1950.

The proper resettlement of these displaced persons requires their knowledge of simple facts about the geography, history, and institutions of America, as well as an understanding of its institutions and customs. Moreover, they need help in making the psychological adjustment in their transfer from the status of displaced persons to that of potential American citizens, and in appreciating their obligations as well as opportunities.

At the request of the Displaced Persons Commission, the Office of Education assigned a staff member, for a period of 3 months, to make a report on an orientation program for displaced persons who are eligible for admission to the United States, and to make recommendations on the most effective methods for administering the proposed program.

EDUCATION OF NEGROES

Few, if any, subjects in education received more public attention during the year than the education of Negroes. This is partially a result of litigation aimed at bringing about equality of opportunity and of the widespread interest of Negroes and certain public officials in bringing public services more in line with democratic principles.

The activities of the Office of Education in this connection included the revival of the National Advisory Committee on the Education of Negroes; sponsorship of a work conference on special guidance

problems of Negroes; publication of a bulletin on the education of Negro leaders; and continuation of the project on literacy education begun in 1946.

An Office study of the technical instruction provided in agriculture in 20 Negro land-grant colleges has been under way for 2 years. The director of this study and a member of the staff of the Agricultural Education Service visited each of the colleges to determine the qualifications of the personnel employed, the suitability of laboratories and equipment for instruction, the nature of the instruction provided, the use made of the farm and its facilities, and the adequacy of the laboratory and reference material for instructional purposes.

EXCEPTIONAL CHILDREN AND YOUTH

The Office published studies of State legislation for education of exceptional children, enrollments in special schools and classes and instructional programs for hospitalized and for crippled children.

Interested nongovernmental agencies have both received and contributed service on specific projects. One of them—the National Society for Crippled Children and Adults, Inc., cooperated with the Office in publishing a report on teacher-education programs. Others, including the National Society for the Study of Education, the International Council for Exceptional Children, the American Association for Gifted Children, the American Epilepsy League, the National Foundation for Infantile Paralysis, and the National Tuberculosis Association have sought the help of Office of Education staff members, or have worked with the Office, in the preparation of publications.

Programs for Improving the Professional Status of Teachers

ELEMENTARY AND SECONDARY SCHOOLS

The three most significant developments in teacher education relate to supply of teachers, organizational efforts for the improvement of teacher education, and qualitative changes in the programs of teacher education.

Teacher Supply

The over-all supply of teachers increased in 1948–49. The supply of new teachers available for employment for the academic year 1949–50 will be greater than the number available in 1941. There

is imbalance, however, in relative numbers of elementary and secondary teachers that will be available. Whereas, in 1941, colleges and universities prepared 32,197 elementary teachers and 35,525 secondary teachers, in 1949 they prepared 24,908 elementary and 55,767 secondary teachers, including those, largely elementary, with less than 4 years' preparation.¹ Since in 1941 there was an ample supply of secondary teachers for such subjects as English and social studies, the supply of teachers for these subjects is greater than the comparison of 1949 and 1941 figures would suggest. The supply of elementary teachers, on the other hand, was not adequate in 1941, and the total number of 1949 graduates was only 77 percent of the number that were graduated in 1941. A favorable development, however, is that the new elementary teachers now being supplied by colleges have undergone longer periods of preparation than those in 1941. Each year fewer prospective teachers leave college with only 2 years of preparation, and a greater proportion are college graduates. This increase in the amount of initial preparation of elementary teachers is due in part to the raising of standards for certification.

Supply and demand in the college teacher field is fast becoming associated with supply and demand of elementary and secondary teachers; 12 percent of all new college faculty members in 1947-48 were recruited from secondary schools.² The percentages of faculty members, old and new, with bachelor's and master's degrees were 16 and 45, respectively. Thirty-four percent with the rank of instructor held bachelor's degrees and 54 percent held master's degrees. The college is, therefore, in competition with the high school for faculty members. Ordinarily, the master's degree would constitute a minimum requirement for college teaching. The facts that 69 percent of all new faculty members were at the instructor level, and that more than 60 percent of all college faculty members held master's or lower degrees indicate a shortage of adequately prepared, experienced teachers at the college level.

In 1947-48, 4,188 doctor's degrees were conferred. From a number of institutional studies and some national studies of recent years, it is clear that a majority of persons receiving doctorates will go into teaching. If 60 percent, or approximately 2,500 per year, should go into college teaching, that would hardly be enough for replacements. Latest information available in the Office of Education shows that about 190,000 college faculty members were employed in 1947-48. The annual turn-over would have to be only 1.3 percent for this supply of 2,500 per year to be adequate for replacements. More college

¹ Maul, Ray C. *Teacher Supply and Demand in the United States*. National Commission on Teacher Education and Professional Standards, National Education Association, 1949.

² *Survey of Salaries and Occupational Attitudes of Faculty Personnel in Higher Education, 1947-48*. Office of Education, Circular No. 254.

teachers will, therefore, have to be prepared if the colleges are to maintain faculties of the present size. To expand to the extent suggested by the President's Commission on Higher Education would require almost twice as many.

The teacher supply situation in 1948-49 may be summarized as follows:

(1) Supply met and exceeded demand in most—but not all—secondary school subjects the country over. The fact, however, that many of these persons have barely met minimum subject-matter and professional standards indicates that there was not yet an oversupply of well-qualified secondary teachers.

(2) The supply of elementary teachers, while improving, still was below the 1941 number by about 23 percent.

(3) There was a shortage of well-prepared college teachers for current enrollments. This statement is based on the assumption that a master's degree constitutes the minimum preparation acceptable for college teaching.

(4) Changes in the economic situation eased the competition for teachers all along the line from the elementary schools to colleges. Students are shifting in significant numbers from engineering, business administration, and strictly liberal arts courses to curriculums leading to teaching. The greatest easement, however, was at the secondary school, where it is needed less than at the elementary school and college levels. The major problem, therefore, is to correct the imbalance between the supply of elementary and secondary school teachers. Based on a 4-year training period as a standard, the data show that there were almost 4 times as many secondary as elementary teachers prepared in 1949.

(5) The number of emergency teaching permits probably declined only slightly from the approximate 100,000 of 1947-48. This can happen despite an over-all increase in the number of teachers because most emergency permits are held by elementary and rural teachers; it is among these groups that shortages are still acute.

Organizational Efforts in Teacher Education

The second major development was in organizational efforts toward the improvement of teacher education. Interested organizations are becoming more closely knit and as a result are more potent forces for the improvement of teacher education. The Council on Cooperation in Teacher Education is using its influence to bring the highly segmented groups interested in teacher education together on problems of common concern. As an example of unification, the American Association of Teachers Colleges, the National Association of Colleges

and Departments of Education, and the National Association of Teacher Education Institutions in Metropolitan Districts merged in February 1948 into an organization called the American Association of Colleges for Teacher Education. This new association will carry on more extensive research and studies than was possible with each working separately.

The National Commission on Teacher Education and Professional Standards of the National Education Association expanded its services. Most of the States now have State commissions which are branches of the National Commission. This development is significant because it represents a fresh interest by the profession in improving teacher education programs. The National Commission in cooperation with the various State commissions held several regional conferences that have made large numbers of persons aware of some of the basic problems in teacher education.

Some 20 States have organized councils on teacher education. These councils generally represent a cross-section of all interested groups in a State. The State education association, the State department of education, and the teacher-education institutions are always represented; and the association of school boards and the State parent-teacher association are often represented. These State councils are generally extra-legal organizations that make recommendations to the State board of education through the State superintendent of public instruction on such problems as teacher recruitment and selection, teacher certification, and in-service teacher education.

Qualitative Changes in Teacher Education

Less obvious than supply and demand or organizational changes, but probably as significant, was a subtle qualitative change in teacher education. This change is hard to document, yet those most sensitive to developments in this area know that it has been taking place. Some of the evidences follow: Approximately 20 State departments of education are trying to improve their standards for approving colleges that propose to educate teachers; a significant number of colleges are making qualitative changes in their pre-service teacher-education programs; and some universities, notably Illinois, Nebraska, Syracuse, Texas, Georgia, Delaware, and Maryland, are improving their services to teachers on the job. Efforts to provide more field laboratory experience for prospective teachers are also becoming common enough to indicate a trend.

The major points to which attention needs now to be directed for further improvements are: (1) The basis for teacher certification;

- (2) the internal organization of institutions preparing teachers; and
- (3) plans and procedures for the in-service education of teachers.

Most certificates to teach are issued by State departments of education. The regulations which the States set for the approval of institutions to prepare teachers and for certification of persons after they are prepared control to a large extent the supply of teachers generally, as well as the balance between the number of elementary and secondary school teachers that are prepared. At present the most common basis for certification is a transcript of credits from an accredited institution. If the transcript shows that a student has completed certain courses, the appropriate certificate is issued. This practice is open to abuse by institutions with only a minor interest in teacher education.

Another problem is the internal organization of institutions that prepare teachers. The President's Commission on Higher Education called attention to this problem. Many institutions are so organized that the intelligence of those competent in teacher education cannot be brought to bear on the improvement of the programs. Responsibility for policy formulation and program planning for teacher education is often widely scattered.

A third problem relates to the in-service education of teachers. With barely 60 percent of the elementary and secondary teachers in America holding college degrees and with changing conditions making new demands on teachers, it is imperative that those now in service develop new insights and skills. Furthermore, the positive influences of improved pre-service teacher-education programs will be largely negated unless teachers now in service are receptive to new developments in education. Teachers, administrators, college faculties, and local boards of education will have to find their appropriate roles in this in-service program.

Progress on In-Service Education

The emerging oversupply of teachers for secondary schools gives employing officers more choice in the selection of teachers. This selectivity in employment permits school and college administrators to exert a significant influence on improvement in the work of both incoming teachers and teachers with experience. Consequently, one finds a continuing increase in (1) the number and variety of workshops attended by employed teachers during the school year and summers; (2) the cooperative committee studies and activities carried on under the auspices of State and local school systems; (3) the supervisory personnel employed in the offices of county superintendents of schools; and (4) the emphasis by professional organizations on studies dealing with improvement of teachers after they are on the job.

During the past fiscal year the Association for Supervision and Curriculum Development issued its yearbook with the title, "Toward Better Teaching," a special issue of *Educational Leadership* dealing with improvement of the work of employed teachers was published, and the American Association of School Administrators was considering the preparation of a yearbook devoted to in-service education of teachers.

Specialists in the Office of Education contributed to the improvement of in-service education of teachers through the 2-week work conference for members of State departments of education, held in the spring of 1949. They also took part in more than 30 regional conferences for teachers in health and physical education, social studies, science and aviation, and industrial arts; and worked closely with educational leaders responsible for the development of teacher-education programs and curricular programs in the schools.

For all of the areas mentioned, specialists provided bibliographies and other publications for teachers. An example of the latter is "Report of the Regional Demonstration Workshop on Teacher Education for Health in Secondary Schools." This 2-week workshop was attended by 65 participants from Arizona, New Mexico, Oklahoma, and Texas, and was sponsored jointly by the Office, the American Cancer Society, and the University of New Mexico.

The Office had in progress a study on in-service education of teachers and another on achieving good staff relationships in the secondary school. These and other projected studies are aimed mainly at discovering outstanding supervisory programs, analyzing them for their points of excellence, and then describing their features and procedures.

Emphasis in Office consultative work in teacher education was on meeting the needs of children and society, developing good citizenship and an understanding of democracy, and providing pupils with a world point of view in the social studies program. To assist teachers and others in improving the curriculum and teaching of social studies, two publications were prepared, *Social Studies Courses of Study* (Selected References No. 17) and "Teaching the Social Studies" (Selected References No. 18).

In the spring of 1948, a National Conference on Professional Preparation in Health, Physical Education, and Recreation was sponsored by several national professional associations. Personnel of the Office participated in this conference and in several follow-up conferences held regionally in 1949. Office staff members also cooperated with national committees of the American Association of Health, Physical Education, and Recreation, and other organizations. Efforts were directed mainly toward improved curriculum and other standards

relating to pre-service and postgraduate professional preparation.

It is estimated that from 300 to 400 workshops in health and physical education were held during the summer of 1948 in addition to many other conferences, workshops, and other in-service activities during the year. Personnel of the Office, upon invitation, participated in many of these, and had direct association with thousands of teachers, administrators, public health personnel, and others in lay and professional groups.

The Office sponsored or participated in workshops on teacher education in health in Bowling Green, Ohio, and in New Mexico; on the social problems of children at Boston University; and on school health services in Colorado.

To encourage teacher-education institutions to examine and improve their offerings in science for elementary school teachers, a clearing house was established for the exchange of curriculum materials and descriptions of successful programs by teacher-training institutions. Two packets of exchange materials were sent to approximately 100 colleges. The packets included suggestions for teaching several subject areas, news items from letters received, samples of science sequences for elementary teachers, and basic principles to keep in mind in planning science courses for elementary teachers.

COLLEGE TEACHING

Improvement of College Teaching

The severe criticisms of the quality of instruction in colleges and universities, presented in the Report of the President's Commission on Higher Education, were doubtless one factor leading a number of institutions to undertake programs to assist their faculties to do better teaching. Colleges are using many devices to assist and to stimulate instructors in improving their teaching.

Particularly significant were the announcements of plans for a different approach to the graduate curriculum for the preparation of college teachers. Syracuse University was one of the first to develop a new-type doctor of philosophy program, in which the objective is broad education in subject-matter and professional preparation in teaching methods, rather than narrow training for research. Harvard University, Columbia University, and the University of Chicago also announced an interest in developing such programs.

Because the Federal Government annually contributes \$5,030,000 to help meet the costs of instruction in land-grant colleges and universities, the Office of Education has a special responsibility in helping to improve college teaching. Accordingly, the Office began during

the year a study of devices for improving the effectiveness of college teaching. The Presidents of the land-grant institutions each named a member of his staff as a liaison officer with the Office in carrying forward the study. These liaison officers were sent two checklists to complete, one listing devices used by graduate schools to improve the training of prospective college teachers, the other listing devices used by colleges to evaluate and improve their teaching. The returns are being used in preparing a handbook on improving college teaching.

Teacher Attitudes Toward College Teaching

As a part of a more comprehensive survey of higher education faculty personnel, the Office asked a representative sample of college teachers a number of questions dealing with their attitudes toward their jobs. Tenure provisions were found to be the most satisfactory item to the full professors, while retirement provisions made the strongest appeal to instructors. Research opportunities were the least satisfactory to the professors, while office space was the least satisfactory to the instructors.

In general, 11 percent of those in the rank of instructor did not expect to remain in college teaching and 30 percent did not expect to remain in their present positions. Of the full professors, 97 percent expect to remain in college teaching and 91 percent expect to stay with their present institutions.

This survey should help colleges and universities increase their holding power with faculty personnel.

SPECIAL TEACHER GROUPS

Teachers of Adult Illiterates

One of the problems in reducing illiteracy in the Nation is the dearth of qualified teachers who understand the interests, needs, and psychology of adults. The project in literacy education sponsored by the Office of Education made an approach to the solution of the problem by training a group of teachers and leaders who could serve as "key men" in promoting and supervising classes for teachers in strategic centers.

All the institutions that participated in the project have expressed a determination to continue their interest in the preparation of teachers of adults. They plan to make the course for such teachers a part of the regular curriculum. In addition, they have individually or co-operatively conducted workshops and special summer courses for the preparation of teachers of adults.

Teachers of Exceptional Children

With the growth of special education for exceptional children and youth has come increased opportunities to prepare teachers for them. That was shown by a study of offerings made by colleges and universities in this field. The number of centers in which well-rounded curriculums in all or even in most areas of special education are offered is still small, totaling not more than a dozen. But more than 150 teacher-education institutions in the United States are offering courses, for example, in teaching the blind, the mentally retarded, the speech-handicapped, or one of the other groups of exceptional children. Staff members of the Office are advising with some of these institutions on the further development of their programs, and with State education officials on certification standards in special education.

International Educational Relations

IMPACT OF WORLD DEVELOPMENTS ON EDUCATION IN THE UNITED STATES

The end of traditional American isolationism involves new responsibilities for education. Membership in the United Nations and in several score of specialized international agencies requires a new awareness of world problems. In the midst of sensational headlines flaunting controversy and crisis in world affairs, American education must train for clear thinking on complex issues, and provide adequate and accurate information as the basis for sound public decisions.

The volume and type of requests for assistance coming to the Office of Education indicate that many American educators are awake to their responsibility, but that they feel a need for guidance. During 1948-49 American teachers, students, and civic leaders requested information about sources of suitable materials on other nations, assistance in developing international programs, reports on effective programs in operation in American schools, or guidance in establishing contacts with foreign schools for the purpose of exchanging correspondence, or arts and crafts or books and professional publications.

Technological advances also make international developments of greater significance to educators in this country than in the past. The development of atomic energy, for example, adds to our "international problems" (discussed elsewhere). Aviation also is a major aspect of world relations. Recommendations of the President's Air Policy Commission for a Nation-wide plan for the instruction of youth were referred to in the Office's 1948 annual report.

Relationship of UN to Education in the United States

Many American educators are also conscious of their obligation to help in implementing, on behalf of the United States, the resolution unanimously adopted by the General Assembly of the United Nations in November 1947, asking all member governments to "encourage teaching of the United Nations Charter and the purposes and principles, structure, background and activities of the United Nations in the schools and institutes of higher learning in their countries." Teachers and leaders of the educational profession are engaged in developing both curricula and teaching methods, especially in the social sciences, in order that students may better understand the new instrumentalities of international cooperation with which our government is increasingly cooperating.

Special announcements and new catalogs received by the Office indicate that an increasing emphasis is being placed on international relations in the curricula of American colleges and universities. Interdepartmental "area study" programs in international relations are broadening the approach to the study of international organization. Universities, State departments of education, professional organizations, and local school systems have sponsored workshops where teachers of social studies learn about the UN and how to teach the fundamentals of international cooperation. Their publication programs have included materials on world affairs and world understanding. In some school systems, separate units on UNESCO have been taught. In one State a number of high schools used assembly periods to show films on the UN and other aspects of international affairs today. These reflect the recognition of a new need for general orientation on international affairs in this country—not only for the relatively small group of students planning international careers, but for those who will become civic leaders in their home communities.

At the invitation of the American Council on Education nearly 100 leading educators, including officials from the Office of Education, attended a conference on The Role of Colleges and Universities in International Understanding held at Estes Park, Colorado, in June 1949. Probably the most significant action of this meeting was the designation of the American Council on Education as the American member of the proposed International Association of Universities and the decision to proceed aggressively with the organization of this Association and with plans for the proposed 1950 conference of the Association.

American delegates played a leading part at the conference of universities which UNESCO sponsored at Utrecht in the summer of 1948, when the foundation was laid for an international associa-

tion of universities; and American classroom teachers were represented at the UNESCO seminars on teacher training, early childhood education, and education for international understanding, which were held, respectively, in England, Czechoslovakia, and the United States. At the public sessions held during the meetings of the U. S. National Commission for UNESCO in Boston and Cleveland, the large numbers of teachers in attendance gave striking evidence of the eagerness of educators to share in the great effort to remove cultural barriers which separate the peoples of the world.

President Truman's "Point 4"

American educators were especially interested in President Truman's program known as "Point 4" to make the benefits of scientific and industrial progress available for the improvement of the under-developed areas of the world. While the emphasis in such a program would naturally be placed upon improving agriculture, expanding industry, conserving natural resources, and increasing communications, it became immediately apparent that the provision of basic education and technical training was essential to such a program of economic development. At the request of the Department of State, the Office of Education participated in the preparation of various educational projects designed to carry out the purposes of the program.

Exchange Programs

During the academic year 1948-49, the United States experienced the greatest influx of foreign students in its history. In spite of already crowded conditions in our institutions of higher learning, 26,759 foreign students were admitted, as against approximately 21,000 in 1947-48 and 16,000 in 1946-47. These students came from 151 countries, colonies, dependencies, protectorates, and absorbed states. They studied in fields ranging from architecture to zoology.

The foreign students enrolled in 1,500 institutions in the continental United States, Alaska, the Canal Zone, Hawaii, and Puerto Rico. In addition to the knowledge imparted in the various academic, technical, and scientific subjects, the students have received a general orientation in the life and background of the people of the United States.

According to the Institute of International Education the percentages of foreign students in the United States, by area of origin, were as follows: Europe, 16; Canada and Newfoundland, 16.5; United States Territories, 0.6; Latin America, 26.4; Africa, 3.5; Asia (including Near and Far East and South Pacific areas), 35.6; undesignated, 1.4.

Of the total number of foreign students, 35 percent came on their

own resources; the institutions of higher learning in this country aided 29 percent; private agencies and foundations here assisted 7 percent; private agencies in foreign countries helped 19 percent; foreign governments aided 8 percent; and 2 percent of these students were assisted by the United States Government.

The Department of State continued its programs of student, teacher, and professor exchanges, some of which operate under the Buenos Aires Convention and some under the Travel and Maintenance Grant program, as well as in-service training in many fields for educators from Latin America. Plans were made to extend these activities to areas other than the Western Hemisphere in 1949-50.

The Department of State has to date completed final agreements with 12 countries—China, Burma, the Philippines, Greece, Italy, Belgium and Luxembourg, the United Kingdom, France, the Netherlands, New Zealand, and Norway—under the Fulbright Act, which provides for cultural and educational exchanges with funds realized from the sale of war surplus materials abroad. Serving as screening agencies in cooperation with the Department of State are the Institute of International Education, the Office of Education, and the Conference Board of Associated Research Councils.

The Department of the Army in cooperation with public and private agencies initiated a program for exchanging students, educators, and leaders in certain professional fields with American-occupied Germany.

This exchange program is a significant phase of the total reorientation program of the U. S. Military Government for Germany. Under the program, Germans in various professional fields are sponsored by an organization, institution, or group in this country and brought here for a period of study and observation of the American way of life, as well as the operation of constitutional government based on the democratic ideal. The program also brings to Germany the best scholarship and training from both the United States and Europe.

An advisory Commission on the Occupied Areas, which works through panels of experts in the several fields of cultural and educational activity, has been established in the United States. The Commission and the panels assist the institutions and organizations which sponsor the visiting Germans by planning programs and visits to institutions where the visitors may observe and participate in their special field of activity.

During the fiscal year 1949 more than 500 German leaders visited this country for periods of from 2 to 12 months. For many of the groups, private foundations subsidized the total cost of the visit except for ocean travel. For other groups the cost was defrayed by Military Government.

IMPACT OF WORLD DEVELOPMENTS ON OFFICE ACTIVITIES

Exchange of Materials and Information

The growing concern of teachers and civic leaders with their role in the postwar world is reflected in the thousands of requests to the office for information and materials. Formerly by far the greatest number of these requests were for material on the other American republics. However, with the creation of the United Nations, requests for material and information on countries outside this hemisphere, as well as on world organizations, such as the UN, UNESCO, and WHO (World Health Organization), formed a large proportion of the correspondence. Teachers asked for information about effective programs of international understanding or intercultural education in operation, with a view to pooling experiences or obtaining practical suggestions for developing similar programs.

To meet the needs in part, a "Selected Bibliography for Teaching About the United Nations" was prepared by the Office's Division of International Educational Relations. A bulletin on developing world understanding in the elementary grades and another on orientation and English instruction for students of other lands were also prepared.

Teachers and supervisors of elementary and secondary schools indicated a growing interest in exchanging materials, such as art work, notebooks, school publications, photographs, and textbooks, with schools in other countries. The Division assisted individual classes in arranging such exchanges with several schools in Latin America. To stimulate interest in the educational possibilities of such exchanges, the Division in cooperation with the Pan American Union displayed an exhibit of arts and crafts received from schools in Chile, Honduras, Japan, Korea, and Venezuela during the conference of leaders of elementary and secondary education held in the Office of Education in May.

The Office also received during the past year approximately 70,000 letters from young people abroad who wished to establish correspondence with American youth. Some 50,000 of these letters came from Germany, and about 12,000 from Japan; in both these countries the project is sponsored by the Military Government authorities. The rest came mainly from England, Holland, and Australia, with a scattering from many other countries.

The number of requests from educators and students in foreign countries for material on every phase of American life was more than double the number received the previous year. In addition, the Office had numerous inquiries from persons abroad who wished to know

where in the United States training in specific lines of work was offered, or who requested publications on the subject.

Numerous invitations also came from American Embassies to send exhibits of text, trade, and professional publications, art work, and other visual aids for inclusion in expositions held in foreign countries. At the request of the Education and Cultural Relations Division of OMGUS (Office of Military Government for Germany [United States]) the Office sent a collection of materials and suggestions for the forum programs sponsored by the Military Government as part of the reorientation program in Germany.

Exchange of Educational Personnel

During 1948-49 the Office of Education continued to administer the exchange of graduate student programs under the Convention for the Promotion of Inter-American Cultural Relations and the nontreaty travel and maintenance grant program for United States and Latin-American graduate students. The first of these was carried out in close cooperation with the Department of State and the second, in cooperation with the Department of State and the Institute of International Education. These programs have served as pilot projects, and through the experience gained in administering these fellowships over a period of years the Office has been able to assist public and private organizations, civic groups, colleges and universities, and international organizations in setting up similar fellowship programs.

Students were received from 11 of the other American Republics participating under the Convention. Five countries did not submit candidates during the year. The United States submitted candidates to 7 of the Latin-American Republics, with panels for other countries in process of being formed. Thirty-seven Latin-American Convention students studied in 29 separate universities in the United States, 14 of these being students whose grants carried over for one semester or more from the previous academic year. Under the travel and maintenance grant program, 18 United States graduate students received awards for study and research in 8 Latin-American countries. The Advisory Fellowship Selection Committee, at its April 1949 meeting, chose 22 United States students for grants during 1949-50. Also, during 1948-49, 50 Latin-American graduate students received travel grants, and 157 maintenance grants were awarded for special training in our colleges and universities. Reports from these students and those who have returned to their homes indicate that they not only have become more proficient in their fields of special study, but also have been able to give a more authoritative and friendly interpretation of this country to their own people.

As one of the participating agencies in the Interdepartmental Committee on Scientific and Cultural Cooperation, the Office has continued its programs for teachers from the other American republics. In-service training was provided this year to teachers from Bolivia, Colombia, Ecuador, El Salvador, Guatemala, and Uruguay in elementary school administration, secondary school organization and curriculum development, rural education, the teaching of English as a second language, and clinical psychology. This program, and the grants for students in the scientific and technical fields particularly, have made a contribution to the program of technical assistance recently proposed by President Truman to aid under-developed countries in these critical fields.

The Office continued its cooperation with public, private, and international organizations, such as the United Nations and UNESCO. Ten United Nations or UNESCO Fellowship grantees were aided by the staff of the Office through informational materials, counsel, and program planning. Fellows were received from Denmark, Norway, Finland, China, India, and the Philippine Islands.

Under the direction of the Office, 126 exchanges of teachers between the United States and foreign countries were in operation during the school year 1948-49. These included 112 British teachers, 7 French teachers, and 7 Canadian teachers in schools in this country and the same numbers of American teachers in schools abroad. These exchanges involved schools in a total of 104 different cities in 31 States and the District of Columbia. Fifty-nine of these exchanges were at the kindergarten and elementary level, 25 at the junior high school level, and 42 at the high-school and junior college levels.

During the year more than 400 American teachers applied to the Office for positions as exchange teachers in foreign countries. These applications were submitted to 25 regional interviewing committees throughout the United States. By the end of the year, 97 exchanges had been arranged between British and American teachers, 7 with France, and 16 with Canada for the school year of 1949-50. A total of 458 inquiries were received from teachers in this country concerning teaching positions in United States territories and possessions. Under the Fulbright program, arrangements were completed for two Belgian teachers to teach French in schools in the United States, and applicants were recruited to fill three secondary school positions in France and two in Burma. Five teachers were recruited and recommended for positions in Afghanistan, and four panels of nominations for Philippine Fulbright professorships in adult, higher, secondary, and vocational education were submitted to the Conference Board, which is an organization supported by the four American learned councils to screen applications.

The Washington (D. C.) Orientation Center has been operated continuously by the Office since 1942 to provide orientation and English instruction to students and in-service trainees brought to the United States by many Government agencies. Using its experience with this Center, the Office has stimulated the establishment of regional orientation centers in colleges and universities strategically located over the United States.

During the year, the Office made a survey of such centers and the types of instruction given. The results indicated that a growing number of institutions recognized this need, and 34 replied that some type of special instruction in English or orientation to American life and customs, or both, was given. Fifteen universities offered special orientation institutes during the summer. The Office also called a conference of the directors of some of these centers to discuss problems relating to orientation. All agreed that this initial preparation often made the difference between a successful and an unsuccessful academic year.

During the year the Office approved for admission to the Washington Orientation Center 353 foreign visitors from 33 different countries. These applicants were recommended by 29 different government agencies or bureaus, 15 foreign embassies, and private agencies.

All of these programs and activities relating to the exchange of educational personnel were carried out in cooperation with the Department of State. Through these programs, in some measure, the critical needs of participating countries have been supplied. They have served to bring about mutual respect and understanding among the peoples concerned, which in turn has strengthened world peace and security.

Evaluation of Foreign Student Credentials

The postwar rise in the numbers of foreign students seeking admission to United States institutions has naturally resulted in an increase of requests for evaluation of credentials, from 1,040 in 1938-39 to approximately 3,000 in 1948-49. (The latter figure is slightly less than that for the previous year, probably because of experience gained by admissions officers, as explained below.) In addition to the increased numbers of students, two other developments are reflected in the volume of credentials being submitted to the Office of Education. One is that relatively more students are coming from countries which formerly sent few students to the United States, and educational systems with which American university officials have little familiarity. Figures for the following countries, based on evaluation requests made to the Office, illustrate this point:

	1939-40	1943-49
Afghanistan.....	7	38
Burma.....	2	71
Egypt.....	38	335
India.....	70	1, 281
Iran.....	11	478
Iraq.....	40	389

The second development is that there is a growing effort to distribute foreign students among a larger number of United States institutions, and, wherever it is advisable in the light of their fields of study, to place them in small institutions, where they may make personal adjustments more easily and where they may have a more intimate experience with American ways of life than in large institutions.

Although the admissions officers of some of the larger institutions have gradually acquired experience and competence in the evaluation of foreign credentials, so that they now refer to the Office only the complicated cases, the officers of the smaller colleges are usually unfamiliar with foreign educational systems and need the assistance of the Office on all credentials submitted to them.

To meet these needs, the Office not only continued its regular procedure of making evaluations in specific cases referred to it by institutions and State boards, but also took steps to assist these officers to develop sufficient competence in evaluating foreign credentials so that eventually they may make most evaluations routinely and refer only the most complex and exceptional credentials to the Office. A series of one-page outlines of the educational systems of a number of foreign countries was distributed to college admissions officers, and additional outlines of this type were in preparation.

Advisory Service to Foreign Visitors and American Students

Through personal conferences and group meetings the Office provided foreign visitors from nearly every country in the world with information and materials to explain the organization, objectives, problems, and trends of education in the United States. Specialists of the Office have assisted these visitors in arranging itineraries by which they could best observe American methods in their respective fields of specialization, and have made it possible for them to meet with experts with whom they might discuss their special interests.

Considerable attention was also given to advising numbers of American students who wished to study abroad. Office staff members replied to hundreds of inquiries from American teachers and students—many of them veterans—seeking information on admission and degree requirements of foreign institutions, living conditions, tuition costs, teacher-training facilities, and other particulars. Publishing houses,

manufacturers of school equipment, and other commercial concerns frequently request up-to-date information about foreign schools. Also, in its cooperation with such UN specialized agencies as ECOSOC (Economic and Social Council), UNESCO, and the Trusteeship Council, the Department of State is increasingly calling upon the Division for technical information concerning foreign education.

Studies of Foreign Systems of Education

At no previous period since the establishment of the Office of Education has there been such an urgent demand for accurate, up-to-date information on foreign school systems as during the past year. College and university officials engaged in admitting, placing, and counseling foreign students feel keenly the need for accurate information on foreign school systems; the Division of International Educational Relations has become the agency to which—perhaps more than to any other, public or private—they look for assistance. A vast amount of information, gathered from reports of the United States Foreign Service, the publications of foreign ministries of education, foreign and domestic professional journals, private research projects, and occasional on-the-spot investigations by members of the Office staff, was assembled and evaluated by the various area specialists. Bibliographical guidance on education in individual countries has been provided to scores of professors and students of comparative education.

Bulletins on education in three of the other American Republics, Bolivia (Bulletin 1949, No. 1), Panama (Bulletin 1948, No. 12), and Venezuela, (Bulletin 1948, No. 14), were published during the year. These bring the total number of such publications to 14. In response to an invitation from the Sweden-America Foundation of Stockholm, an Office specialist made field surveys of education in Denmark, Finland, Norway, and Sweden.

Programs of American Military Government

The Office sponsored five groups—with a total of 25 men and women—of German educational leaders who came to the United States to study various phases of vocational education. These visitors first spent a week in Washington to study the organization of vocational education programs in this country. Then, with the cooperation of State and local school officials, itineraries were made for each group which permitted them to see vocational schools and classes of all types in more than 60 cities in 16 States. Opportunities were also provided for them to visit homes, farms, and industries for which the vocational schools are training workers.

Participation in International Conferences

With the growing responsibility of the United States in world affairs, it has become increasingly important to have official representation at the various international conferences which are concerned with education or to which educational experts can make a valuable contribution.

INTERNATIONAL CONFERENCE ON PUBLIC EDUCATION

The Director of the Division of Secondary Education in the Office was chairman of the United States delegation and one of the three conference vice-chairmen at the Eleventh International Conference on Public Education, held in Geneva, Switzerland, June 28–July 3, 1948. Jointly sponsored by UNESCO and the International Bureau of Education, and composed of 81 delegates representing 45 countries, the conference considered reports from each country on "Educational Developments during 1947–1948." It also formulated draft recommendations to the national governmental agencies in each country on "The Role of Educational Psychologists," "The Teaching of Writing," and "Teaching Regarding the United Nations and the Specialized Agencies."

UNESCO CONFERENCE AT BEIRUT

The Third General Conference of UNESCO, which was held in Beirut, Lebanon, November–December, 1948, marked the completion of the first 2 years of that specialized agency in the United Nations. Despite political and financial difficulties which could not have been foreseen when the organization was launched, it was apparent at the conference that real progress had been achieved in both administration and program. This was especially true in the field of education, where an administrative consolidation of various scattered projects was followed by a sharpening of emphasis upon a few broad functions in which the limited staff resources could be made most effective. Chief among these functions is that of an educational "clearing house," in the promotion of which the UNESCO specialists will, on the one hand, seek to ascertain the most pressing educational problems of member States, while, on the other hand, they will endeavor to discover the outstanding contributions which member States are making to the solution of these and other problems. In its efforts to bring member States together for these purposes, UNESCO planned to use consultative missions as one device. Two such international missions were sent by UNESCO in 1948, one to the Philippines and one to Siam; and arrangements were also made for a third to go to Afghanistan.

The Beirut conference, at which a member of the Office of Education staff served as advisor to the United States delegation, was entrusted with the task of appointing a new director-general of the organization. Dr. Jaime Torres Bodet, a former minister of education of the Republic of Mexico, was selected.

UNESCO SEMINAR ON CHILDHOOD EDUCATION

During the summer of 1948 UNESCO brought educators together to consider ways and means of developing world-mindedness in children. In this study, seminar members discovered that they were having an experience in international living and learning which had meaning not only for themselves, but for the planning of similar experiences for children in their own countries. Thus, the seminar set in motion a chain of activities which will extend into many parts of the world. One of the two official participants of the United States at the seminar on Childhood Education in Podebrady, Czechoslovakia, was a member of the Office staff.

WORLD COUNCIL OF EARLY CHILDHOOD EDUCATION

The first meeting of the World Council of Early Childhood Education was held in Prague, Czechoslovakia, following the UNESCO seminar. The Office participant in the seminar was, therefore, designated to attend this international assembly. The conference work centered on the need for cooperative activities between educators in the 18 countries present, and considered the formation of a world organization which would serve as a clearing house for information on developments around the world on early childhood education. There was agreement that education of children must become an international cooperative enterprise.

INTER-AMERICAN CONFERENCE ON CONSERVATION

The Inter-American Conference on Conservation of Renewable Resources, held in Denver, September 1948, marked the beginning of a period which spotlighted conservation problems as never before. Within the last 10 months of the fiscal year, five international conferences on the conservation of natural resources were held, and the International Union for the Protection of Nature was established at Fontainebleau, France, October 1948.

A member of the Office staff participated in the Denver conference and served as a member of the United States Organizing Committee to formulate plans for the program of the forthcoming International Technical Conference on the Protection of Nature, held concurrently with the United Nations Scientific Conference on the Conservation

and Utilization of Resources, Lake Success, New York, August-September 1949.

CONFERENCES ON COMMUNICATIONS

International conferences in the field of communications were held with UNESCO in September 1948, resulting in a world-wide survey of radio broadcasting for education. The Office of Education completed the United States report in April 1949.

Conferences with eight radio educators for the Occupied Zone of Germany were held in May 1949 in Washington, where agenda were prepared for the second annual meeting of the society for teaching with modern Lehrmitteln in Nurnberg in October 1949. A similar conference in Washington in June 1949, with representatives of Japan and Korea, resulted in new outlines for educational broadcasting in our Far Eastern occupied lands.

In June 1949, a 2-week Seminar in Communications was held under auspices of the Rockefeller Foundation at the University of Illinois, with representatives from Denmark, the Philippines, Japan, Korea, Canada, and the United States. The Office took part in the planning and in the deliberations on the status of educational broadcasting and future use of television, facsimile, and kinescoped film for schools. The report of the Seminar lists 110 educational broadcasting stations in schools, colleges, and universities in the United States and 11 applications for television stations (one under construction) to be operated as educational stations under regulations of the Federal Communications Commission.

Planning for Fundamental Education

The purpose of the UNESCO project in fundamental education is to assist member states in carrying out programs of basic education, to reduce illiteracy, and to raise the general level of the people's health and welfare. The stimulation which UNESCO is giving to a world-wide attack on illiteracy constitutes one of its most significant contributions to peace and progress. Especially in the Western Hemisphere, where 50 percent of the 140 million people of Latin America cannot read or write, governments are turning to UNESCO for assistance in undertaking mass education movements or in increasing the effectiveness of those already in operation. Under the joint auspices of UNESCO and the Organization of American States, an international seminar on the methods of eradicating illiteracy was scheduled to be held at Rio de Janeiro, in the summer of 1949. The Office of Education participated in the arrangements for this important cooperative enterprise.

CONFERENCE ON THE REHABILITATION OF THE CRIPPLED

An Inter-American conference was called in Mexico City to consider the educational, medical, and vocational aspects of an all-round program on the rehabilitation of crippled persons. The United States Government sent a delegation of 10 persons to this conference, one of whom was an Office of Education representative. The delegates formulated 18 resolutions outlining a minimum 5-year program for the crippled. Highlights of the resolutions are: The "right" of the handicapped person to receive the services he requires; the need for coordination of educational, medical, and vocational service; the need for an adequate census; and the need for prevention.

INTERNATIONAL CONFERENCE ON CORRESPONDENCE EDUCATION

The Second International Conference on Correspondence Education, held in Lincoln, Nebraska, October 1948, was attended by an Office staff member. There were 117 delegates from Australia, Canada (17 Provinces), New Zealand, Norway, the Philippines, and the United States (20 States).

CONGRESS OF EDUCATIONAL FILMS

A staff member served as representative of the United States to the First International Congress of Educational and Instructive Films called in Paris, October 1948, by Comité International pour la Diffusion des Artes des Lettres des Sciences par la Cinématographe. The Office also assisted in the development of an international catalogue of films, and of visual aids for fundamental education.

Appendix

PUBLICATIONS ISSUED BY THE OFFICE

Bulletins, Pamphlets, Leaflets, Etc.

- With *Liberty and Justice* for All. Bulletin 1948, No. 15.
Radio and Television—Bibliography. Bulletin 1948, No. 17.
Education in Bolivia. Bulletin 1949, No. 1.
State Legislation for Education of Exceptional Children. Bulletin 1949, No. 2.
School in the Hospital. Bulletin 1949, No. 3.
100 Evening Schools. Bulletin 1949, No. 4.
Science Teaching in Rural and Small Town Schools. Bulletin 1949, No. 5.
Accredited Higher Institutions, 1948. Bulletin 1949, No. 6.
Teaching of United States History in Public High Schools. Bulletin 1949, No. 7.
Statistics of Land-Grant Colleges and Universities, year ended June 30, 1948.
Bulletin 1949, No. 8.
Petersburg Builds a *Health* Program. Bulletin 1949, No. 9.
A Directory of 897 16mm. Film Libraries. Bulletin 1949, No. 10.
The Place of Subjects in the Curriculum. Bulletin 1949, No. 12.
Improving School Custodial Service. Bulletin 1949, No. 13.
Selected Bibliography on School Finance, 1933 to 1948. Bulletin 1949, No. 14.
Adult Education Activities of the Public Schools, Report of a Survey, 1947-48.
Pamphlet No. 107.
Preparing Your Child for School. Pamphlet No. 108.
Federal Government Funds for Education, 1946-47 and 1947-48. Leaflet No. 79.
Education of Crippled Children in the United States. Leaflet No. 80.
Space and Equipment for Homemaking Programs. Misc. No. 9.
The Structure of State Departments of Education. Misc. No. 10.
Evaluating and Reporting Student Progress in Business Education, Vocational Division Bulletin No. 238.
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An Evaluation of Local Programs of Vocational Education in Agriculture, Vocational Division Bulletin No. 240.
Business Experience for Business Teachers,—Plans and Procedures, Vocational Division Bulletin No. 241.
Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ended June 30, 1948.
College Building Needs. Special Series No. 1.
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Directory of Secondary Schools in the United States. Circular No. 250.
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Class Size—The Larger High School. Circular No. 305.
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Statistical Summary of Education, 1945-46. Chapter I.
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 Statistics of City School Systems, 1945-46. Chapter III.
 Statistics of Public High Schools, 1945-46. Chapter V.

Education Directory

Federal Government and States, 1948-49. Part 1.
 Counties and Cities, 1948-49. Part 2.
 Higher Education, 1948-49. Part 3.
 Education Associations and Directories, 1948-49. Part 4.

Miscellaneous

Annual Report of the Federal Security Agency, Office of Education, 1948.
 Classroom Growth Record.
 Growing Into Democracy.
 Life Adjustment Education for Every Youth.

Periodicals

SCHOOL LIFE (9 issues—October 1948-June 1949, inclusive, with Supplement to March issue entitled "Atomic Energy Here To Stay").
 HIGHER EDUCATION (18 issues—September 1948-May 1949, inclusive, including special issue February 1 on "Atomic Energy and Higher Education").





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