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ADVANCE ESTIMATES OF PUBLIC ELEMENTARY AND SECONDARY SCHOOLS FOR 1948-49

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FOR PUBLIC SCHOOLS thruout the nation the school year 1948-49 will be one of adjustment to a new combination of problems. During the war years the major problem was one of maintaining a staff in the face of a dwindling supply of graduates from teachers colleges and the attractiveness of exceptionally high salary levels in nonschool employment.

This year before public-school systems could completely replace their emergency teachers and recover from wartime personnel losses they are being confronted by rapidly increasing school enrolments. The situation is complicated further by the almost complete absence of new school construction during the war years and the slow postwar recovery in construction in the postwar period. Hence, the basic problem of maintaining a qualified staff is complicated by the race to obtain the additional staff and the new school housing necessary to serve the exceptional number of children born since 1940.

THIS MEMORANDUM is based upon information supplied by state and territorial departments of education and by education associations. It is the seventh in a series of national estimates begun in 1942-43.

The figures given are estimates. They are based upon statistics of previous years adjusted by such expert judgment and preliminary figures as are available. Most states have not issued final statistics on 1947-48 and only a few have preliminary data for 1948-49.

At the same time, previous experience with this series of memorandums has shown that these advance estimates will provide a reasonably accurate summary of conditions in public education as of October 1948. Elaborate statistical manipulations of these figures, beyond those given herein, are not advisable.

The present difficulties of the public schools did not develop overnight. Prior to World War I, the reports of local, state, and national school officials clearly indicated that in many parts of the country the low level of teachers' salaries, the lack of minimum educational opportunities, and inadequate school revenues were all helping to create educational deficits. The existence of these deficits among the American people were revealed when thousands of young men were rejected for service in World War I.

As a result of World War I experiences there was widespread effort to improve the schools. By 1930 remarkable progress had been made in teacher certification standards, salary schedules, curriculums, and school finance. However, there were still many communities, and even whole states, where the general status of public schools was below acceptable educational standards.

The depression period of the 1930's was a definite setback. Most communities curtailed curriculums, reduced salaries, and decreased their current expenditures. School construction was often postponed. By the school year 1935-36 the general trend was again toward better conditions but the effects of the depression often remained.

When World War II came, 690,000 young men were rejected for educational deficiencies which had been caused largely by lack of school opportunities in the preceding two decades.

The outlook for 1948-49 is that some gains will be made in teacher supply and in salary schedules. Whether or not the present outlook is sustained during the year will depend upon what happens in the following areas:

1. The nationwide effort to recruit young men and women for teaching and to improve teacher education.

2. The up-grading of substandard teachers or their replacement either by new graduates from the colleges or by qualified, experienced teachers returning to the profession.

3. The retention of the maximum number of the competent teachers now employed by the continued improvement of salaries and working conditions.

4. The replacement of obsolete buildings and equipment and the construction of new facilities so as to provide adequately for increasing enrolments.

5. The control of nationwide economic dislocations and of international relationships which produce inflationary conditions.

Emergency certificates in 1948-49 - Table 2 (column 7) of the present memorandum shows that it will be necessary to employ at least 97,935 teachers with emergency certificates. The comparable figure in October 1947 was 101,612.

It is believed that the estimates each October are an approximation of the number of emergency certificates which will be in use at any given time during the school year. The October figure does not include the total number of emergency certificates which will be issued during the school year. A number of the certificates issued after October are not used or are used for relatively brief periods. This explains why the total for 1947-48 (see Table 2, column 4) is larger than the 101,612 estimate of October 1947.

It is probable that the number of emergency certificates actively in use at any one time has ranged each school year between the following limits:

1945-46	from 115,000 to 120,000
1946-47	from 110,000 to 115,000
1947-48	from 102,000 to 107,000
1948-49	from 98,000 to 103,000

Vacancies - The trend in reported vacancies is some indication of the teacher supply situation. In October 1945 the total reported vacancies was 13,257; in 1946, a total of 14,361; in 1947, a total of 7,633; and in October 1948 (see column 2, Table 3), a total of 3,865.

The estimate of vacancies made each October is only an approximation of the true situation. In some communities where enrolments are large new "vacant" positions cannot be established because of a shortage of funds and classrooms. Other vacancies, reported in October, are dropped when enrolments change or a qualified supply is not available. The influence of these factors is shown by column 2 of Table 3 which gives 6,721 vacancies in 1947-48 as estimated in October 1948 as compared with the estimate of 7,633 for 1947-48 made in October 1947.

In October 1948 the question was broadened to include those adversely affected by the shortage of building space as well as the shortage in teacher supply. Again the results (columns 6-8, Table 5) are incomplete.

On the basis of estimates for previous years the probabilities are that at least 1,500,000 children are deprived of a full year of schooling or are suffering impaired educational opportunities as a direct result of the teacher shortage. Possibly an additional 500,000 have less than full-time schooling because of the building shortage.

School building situation - In October 1948 a new question was added to the survey. It asked state officials to indicate the extent of the building shortage in rural and urban schools. The details of Table 7 may be summarized as follows:

Type of school	Number of states in which building shortage is		
	Very small	Considerable	Very large
Rural			
Elementary.....	5	31	12
Secondary.....	14	25	9
Urban			
Elementary.....	1	25	22
Secondary.....	13	26	9

In nearly half of the states the elementary-school building shortage is "very large" in city-school systems; in one-fourth of the states it is also "very large" in rural schools.

For all practical purposes (counting "considerable" and "very large") there is a serious nationwide shortage of elementary-school buildings. This condition reflects the increased enrolments arising from the high birth rates of the war years. It has been made especially serious by the lag in school construction during the depression years of the 1930's and the war period.

The nationwide situation becomes especially ominous when it is noted that only about one-fourth of the states report a "very small" building shortage in secondary schools. It is a serious problem to consider what the situation will be in most states when the present high level of elementary-school enrolments reaches the secondary schools. Frantic efforts today, and in the next few years, to meet the elementary-school situation may make it virtually impossible for local-school districts to anticipate the building needs of secondary schools which will become increasingly acute about 1960.

Pupil enrolments - In 1939-40, according to the United States Office of Education, the public elementary and secondary schools enrolled 25,433,542 pupils - 18,832,098 in elementary schools and 6,601,444 in secondary schools. The Office reported that by 1944-45 the public elementary schools had dropped to 17,665,594; the public secondary schools declined to 5,560,190; in 1945-46 the report was 17,677,744 in public elementary schools and 5,622,197 in public secondary schools, a total of 23,299,941.

filling its teaching positions with fully qualified teachers. In urban and rural elementary schools the supply of qualified teachers is far behind estimated needs. That the situation for the whole nation does not look worse must be attributed to curtailment in curriculum offerings and substantial increases in the sizes of classes.

Teacher preparation - In both the 1947-48 and 1948-49 surveys state officials were asked how total teacher training enrolments compare with those of 1940-41. The change in the national situation has been as follows:

	Number of states reporting current enrolments as		
	Much smaller than 1940-41	About same as 1940-41	Much larger than 1940-41
1947-48.....	18	9	21
1948-49.....	9	14	25

The individual state reports are given in column 8 of Table 6. The summarized totals above suggest that at least three-fourths of the states in 1948-49 will have enrolments in teacher training institutions which are equal to or larger than their enrolments in 1940-41. This situation is some gain over 1947-48.

For the nation as a whole the total enrolment in teacher education began to decline after 1940 reaching about 40 percent of the prewar total by the middle of the war period. By 1945-46 the national total had improved and was approaching 65 percent of the prewar figure. It is probable that the nationwide enrolment in teacher education is now about equal to the prewar total. It is also true that teachers colleges have enrolled students who are attending only until they can be admitted to other types of colleges and universities. Thus, contrary to expectations on the basis of total enrolment, teacher education institutions are graduating a smaller number of fully qualified elementary-school teachers than they did before the war; only for "regular" secondary-school teachers has the number of graduates of teacher education returned to prewar levels.

Two of the most perplexing aspects of the teacher supply and demand problem are: (a) the apparent reluctance of many young people to prepare themselves for teaching in elementary schools, and (b) the existence of some oversupply of graduates in a few states (usually where salaries are high) and an undersupply in other states. These conditions, not clearly revealed by nationwide surveys, cannot be overlooked in any appraisal of the total situation. In brief, altho estimates may show teacher supply and demand approaching a balance on a nationwide basis, the dislocations in some regions and many individual states are more serious than in recent years.

Actual salaries higher; relative value lower - In 1947-48 the NEA Research Division estimated that the average salary of all instructional staff (classroom teachers, principals, and supervisors) was $2550. The estimated comparable average for 1948-49 is $2750. Estimated state averages are given in Table 4 for all instructional staff and for classroom teachers only.

Remarkable increases seem to have been made in school salaries. In 1939-40 the average salary for all instructional staff was $1441, as compared to the $2750 of 1948-49. But the value of this apparent increase has been cut down by the following trends.

One deflating factor is the increase in prices, which at present levels makes the 1948-49 average salary worth about $1571 in prewar dollars ($2750 divided by 175, the BLS index; 1935-39 equals 100; see footnote on Table 4).

TABLE 1. - ESTIMATED NUMBER OF CLASSROOM TEACHERS, PRINCIPALS, AND SUPERVISORS IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS, 1947-48 AND 1948-49

1948 (16)

State	1947-48 Elementary	1947-48 Secondary	1947-48 Total	1948-49 Elementary	1948-49 Secondary	1948-49 Total
1	2	3	4	5	6	7
Alabama	13,300	7,300	20,600	13,400	7,400	20,800
Arizona	3,215	1,088	4,303	*3,300	*1,200	*4,500
Arkansas	8,191	4,688	12,879	8,050	5,035	13,085
California	33,700	23,600	57,300	35,400	24,100	59,500
Colorado	*6,300	*2,700	*9,000	*6,400	*2,750	*9,150
Connecticut	6,539	3,858	10,397	6,854	3,858	10,712
Delaware	911	868	1,779	912	878	1,790
Dist. of Columbia	1,708	1,776	3,484	1,747	1,802	3,549
Florida	9,090	7,036	16,126	9,544	7,388	16,932
Georgia	15,778	6,862	22,640	16,200	6,900	23,100
Idaho	3,080	1,320	4,400	3,140	1,450	4,590
Illinois	32,347	13,362	45,709	32,509	13,200	45,709
Indiana	12,567	11,347	23,914	13,000	11,400	24,400
Iowa	13,818	7,808	21,626	14,009	7,644	21,653
Kansas	9,840	6,628	16,468	10,000	6,960	16,960
Kentucky	13,092	5,327	18,419	13,427	5,740	19,167
Louisiana	*10,700	*4,500	*15,200	*10,900	*4,650	*15,550
Maine	4,350	1,750	6,100	4,400	1,750	6,150
Maryland	*5,630	*4,420	*10,050	*5,700	*4,450	*10,150
Massachusetts	15,800	7,950	23,750	16,000	7,900	23,900
Michigan	20,950	13,150	34,100	23,000	13,300	36,300
Minnesota	11,870	8,386	20,256	12,000	8,500	20,500
Mississippi	11,200	4,000	15,200	11,250	4,000	15,250
Missouri	16,975	6,301	23,276	17,000	6,400	23,400
Montana	3,383	1,358	4,741	3,410	1,370	4,780
Nebraska	9,100	3,400	12,500	9,150	3,400	12,550
Nevada	800	343	1,143	855	343	1,198
New Hampshire	1,879	989	2,868	1,900	1,000	2,900
New Jersey	*16,000	*10,400	*26,400	*16,200	*10,450	*26,650
New Mexico	*2,920	*1,400	*4,320	*2,950	*1,400	*4,350
New York	47,280	28,000	75,280	48,280	28,200	76,480
North Carolina	19,894	6,670	26,564	20,194	6,871	27,065
North Dakota	4,650	1,850	6,500	4,660	1,860	6,520
Ohio	23,971	19,335	43,306	24,422	19,499	43,921
Oklahoma	11,086	6,307	17,393	11,100	6,400	17,500
Oregon	6,200	2,800	9,000	6,500	3,000	9,500
Pennsylvania	33,000	25,000	58,000	34,000	25,100	59,100
Rhode Island	2,032	1,784	3,816	*2,020	*1,810	*3,830
South Carolina	11,604	4,509	16,113	12,300	4,900	17,200
South Dakota	5,280	1,733	7,013	5,300	1,800	7,100
Tennessee	15,265	5,184	20,449	15,475	5,275	20,750
Texas	29,012	15,996	45,008	30,000	16,000	46,000
Utah	2,705	2,252	4,957	2,800	2,252	5,052
Vermont	1,733	812	2,545	1,720	820	2,540
Virginia	13,346	6,448	19,794	13,800	6,600	20,400
Washington	10,165	4,350	14,515	10,800	4,650	15,450
West Virginia	10,202	5,307	15,509	10,340	5,360	15,700
Wisconsin	14,000	6,600	20,600	14,000	6,600	20,600
Wyoming	1,768	894	2,662	1,765	910	2,675
Total	578,226	319,746	897,972	592,083	324,525	916,608

* Estimated by NEA Research Division.

TABLE 3. - ESTIMATED VACANCIES AND NEEDED SUPPLY, 1947-48 AND 1948-49

State	Vacancies 1947-48	Vacancies, 1948-49			Needed supply (see note a)		
		Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7	8
Alabama	200	...	...	100	...	...	2,000
Arizona	20	...	...	25	...	...	400
Arkansas	330	180	120	300	1,000	250	1,250
California	*100	...	...	*50	...	...	*5,000
Colorado	*500	...	...	*200	...	...	*800
Connecticut	0	...	...	25	830	170	1,000
Delaware	0	0	10	10	38	15	53
Dist. of Columbia	20	1	1	2	0	0	*100
Florida	100	60	20	80	1,500	300	1,800
Georgia	250	100	50	150	200	100	300
Idaho	50	...	...	50	750	250	1,000
Illinois	100	0	0	0	*2,325	*175	*2,500
Indiana	50	...	...	50	...	...	450
Iowa	*75	...	...	*25	...	...	*1,700
Kansas	90	*12	*13	25	400	125	525
Kentucky	25	100	0	100	4,000	300	4,300
Louisiana	*100	...	...	*75	...	...	*1,400
Maine	100	32	8	40	750	50	800
Maryland	0	...	...	*20	...	...	*900
Massachusetts	0	...	...	*50	558	327	885
Michigan	0	0	0	0	8,000	500	8,500
Minnesota	150	...	...	100	...	...	2,000
Mississippi	322	...	...	200	...	...	1,500
Missouri	*200	...	...	*100	...	...	*1,000
Montana	110	40	30	70	400	200	600
Nebraska	700	...	...	200	1,500	500	2,000
Nevada	5	10	0	10	50	10	60
New Hampshire	0	0	0	0	...	...	*100
New Jersey	54	...	...	*60	...	...	*1,100
New Mexico	20	...	...	*10	...	...	*400
New York	200	...	...	100	750	250	1,000
North Carolina	50	25	25	50	...	...	2,500
North Dakota	200	237	21	258	300	150	450
Ohio	740	0	250	250	750	250	1,000
Oklahoma	500	250	200	450	800	500	1,300
Oregon	100	0	0	0	...	...	1,500
Pennsylvania	300	0	0	0	...	...	*1,000
Rhode Island	0	...	...	0	...	...	0
South Carolina	0	10	5	15	...	...	1,500
South Dakota	40	...	...	40	...	...	1,300
Tennessee	0	0	0	0	...	...	*2,000
Texas	*500	...	...	*250	...	...	*4,000
Utah	40	...	...	25	1,200	475	1,675
Vermont	90	0	25	25	50	75	125
Virginia	100	...	...	100	...	...	4,830
Washington	0	...	...	0	...	...	4,000
West Virginia	100	...	...	80	1,200	300	1,500
Wisconsin	*50	...	...	*50	1,350	300	1,650
Wyoming	40	30	15	45	250	150	400
Total	6,721			3,865			76,153

NOTE: a/ "Needed supply" is defined as "teachers necessary to replace untrained emergency teachers and to reduce teacher load in state to 1940-41 levels."

* Estimated by NEA Research Division.

TABLE 5. - ESTIMATED PUPIL ENROLMENT AND PERCENT LACKING FULL-TIME SCHOOLING, 1947-48 AND 1948-49

State	Total in 1947-48	1948-49 enrolment			Percent lacking full-time schooling[a]		
		Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7	8
Alabama	651,480	491,600	161,400	653,000	...	...	...
Arizona	139,677	*108,000	*32,000	140,000	...	...	...
Arkansas	416,698	338,263	83,813	422,076	11.0%	13.0%	...
California	1,531,411	1,163,000	432,000	1,595,000	...	...	...
Colorado	*220,000	*175,000	*55,000	*230,000	...	...	...
Connecticut	265,572	189,213	75,604	264,817	10.0	0.0	...
Delaware	43,101	27,000	17,500	44,500	...	...	...
District	90,899	53,228	34,740	87,968	4.9	0.1	...
Florida	446,672	296,033	172,973	469,006	0.2	0.2	...
Georgia	743,201	595,000	160,000	755,000	0.5	0.2	0.7%
Idaho	114,457	86,000	30,000	116,000	...	...	...
Illinois	1,175,000	865,000	330,000	1,195,000	0.0	0.0	...
Indiana	634,272	482,000	178,000	660,000	...	...	...
Iowa	461,000	328,550	137,450	466,000	...	...	...
Kansas	338,000	252,000	88,000	340,000	...	...	...
Kentucky	547,519	422,978	117,226	540,204	...	...	...
Louisiana	*446,000	*361,000	*90,000	*451,000	...	...	...
Maine	156,142	124,140	36,000	160,140	...	...	.01
Maryland	*308,000	*246,000	*69,000	*315,000	...	...	...
Massachusetts	573,000	430,000	159,000	589,000	0.0	0.0	...
Michigan	980,000	640,000	360,000	1,000,000	1.5	6.9	...
Minnesota	487,389	327,500	172,500	500,000	...	...	...
Mississippi	540,651	466,000	77,600	543,600	...	...	...
Missouri	645,000	500,000	150,000	650,000	...	...	...
Montana	97,465	75,500	25,800	101,300	0.3	0.8	...
Nebraska	225,000	161,000	63,000	224,000	...	...	...
Nevada	27,280	21,000	7,000	28,000	0.0	0.0	...
New Hampshire	68,400	51,000	19,000	70,000	0.0	0.0	...
New Jersey	645,960	392,000	273,000	665,000	...	...	...
New Mexico	*138,000	*118,000	*24,000	*142,000	...	...	...
New York	1,890,000	1,328,000	588,000	1,916,000	15.0	5.0	...
North Carolina	854,139	700,000	175,000	875,000	15.0	5.0	...
North Dakota	113,284	87,500	27,000	114,500	...	...	...
Ohio	1,111,402	771,289	391,529	1,162,818	...	0.0	...
Oklahoma	489,642	355,000	150,000	505,000	6.0	0.0	...
Oregon	256,000	200,000	67,000	267,000	5.0	2.0	...
Pennsylvania	1,510,335	972,083	561,171	1,533,254	0.0	0.0	...
Rhode Island	94,062	*70,000	*25,000	*95,000	0.0	0.0	...
South Carolina	458,661	356,000	120,000	476,000	0.0	0.0	...
South Dakota	114,510	86,000	29,000	115,000	...	...	...
Tennessee	627,842	522,000	128,000	650,000	...	...	4.0
Texas	*1,279,781	1,030,000	300,000	1,330,000	...	...	...
Utah	146,484	91,000	59,000	150,000	...	...	...
Vermont	55,398	41,000	15,000	56,000	0.0	0.0	...
Virginia	569,108	438,000	142,000	580,000	...	...	...
Washington	403,956	320,000	109,000	429,000	2.0	0.0	...
West Virginia	423,250	296,936	133,064	430,000	...	...	2.0
Wisconsin	492,500	357,500	139,500	497,000	0.0	0.0	...
Wyoming	53,700	40,600	13,600	54,200	0.0	0.0	...
Total	24,101,300	17,848,913	6,804,470	24,653,383			

a/ By definition: "the percent of pupils lacking regular full-time schooling because of shortage of qualified teachers and/or school buildings" does not include number in inadequate buildings.

* Estimated by the NEA Research Division.

TABLE 7. - ESTIMATE OF THE SCHOOL BUILDING SHORTAGE, 1948-49

State	Rural schools		Urban schools	
	Elementary	Secondary	Elementary	Secondary
1	2	3	4	5
Alabama	Some[a]	Some[a]	Large[a]	Small[a]
Arizona	Some	Some	Some	Some
Arkansas	Some	Some	Large	Some
California	Some	Some	Large	Small
Colorado	*Some	*Some	*Some	*Small
Connecticut	Some	Some	Some	Small
Delaware	Some	Small	Some	Small
District of Columbia	...	...	Large	Some
Florida	Some	Some	Large	Large
Georgia	Large	Large	Some	Some
Idaho	Some	Some	Large	Some
Illinois	Small	Small	Some	Small
Indiana	Some	Small	Large	Some
Iowa	Small	Small	Some	Small
Kansas	Small	Small	Some	Some
Kentucky	Large	Large	Large	Large
Louisiana	*Large	*Small	*Some	*Small
Maine	Large	Large	Large	Large
Maryland	*Some	*Some	*Large	*Some
Massachusetts	Some	Large	Large	Large
Michigan	Some	Some	Some	Small
Minnesota	Large	Large	Some	Some
Mississippi	Large	Small	Some	Small
Missouri	*Some	*Small	*Some	*Small
Montana	Small	Some	Large	Some
Nebraska	Some	Small	Some	Some
Nevada	Some	Some	Some	Some
New Hampshire	*Some	*Some	*Some	*Some
New Jersey	Some	Some	Large	Some
New Mexico	*Some	*Small	*Large	*Some
New York	Some	Some	Large	Large
North Carolina	Large	Some	Some	Some
North Dakota	Some	Some	Some	Some
Ohio	Some	Some	Some	Some
Oklahoma	Some	Some	Some	Some
Oregon	Large	Some	Large	Some
Pennsylvania	Large	Large	Large	Large
Rhode Island	Small	Small	Small	Small
South Carolina	Some	Large	Large	Some
South Dakota	Some	Small	Some	Small
Tennessee	Large	Some	Some	Some
Texas	Some	Some	Some	Some
Utah	Some	Small	Large	Some
Vermont	Large	Some	Some	Some
Virginia	Large	Large	Large	Large
Washington	Some	Some	Large	Some
West Virginia	Some	Large	Large	Large
Wisconsin	Some	Some	Large	Large
Wyoming	Some	Small	Some	Some

a/ Terms used: "small" means "practically none"; "some" means "considerable"; "large" means "very large."

* Estimated by NEA Research Division.