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ADVANCE ESTIMATES OF PUBLIC ELEMENTARY AND SECONDARY SCHOOLS FOR THE SCHOOL YEAR 1949-50

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VIEWING THE NATION AS A WHOLE, the school year 1949-50 will continue to be a period of strain and stress for the public schools. This condition arises chiefly from two basic shortages: (a) a lack of qualified classroom teachers, particularly for elementary schools; and (b) a lack of school buildings to house the steadily increasing enrolments. Both shortages are complicated in specific states and local districts by such factors as inadequate school revenues, low and unattractive salary schedules, inefficient taxation practices (e.g., defective assessment of real estate and tax and bond limitations), inflated prices, lack of systematic efforts to recruit and prepare an adequate supply of new teachers in relation to employment needs, and unattractive conditions of employment. This report summarizes the nationwide public school situation in terms of general state conditions; it does not reveal the variety of conditions within states.

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

Most of the figures given are estimates. They are based upon statistics of previous years adjusted by such expert judgment and preliminary figures as are available. Many states have not compiled final statistics on the school year 1948-49 and only a few have preliminary figures for 1949-50.

Previous experience with this series of advance summaries indicates that the present report is a reasonably accurate statement of conditions in public education as of October 1949. Elaborate statistical manipulations of these figures, beyond those given herein, are not advisable.

The Outlook in Continental United States

The following section briefly summarizes Tables 1 thru 7, appended to the end of this memorandum.

Substandard certificates - In each state one measure of the teacher shortage is the number of emergency or temporary certificates issued each year. Such certificates are given to those who for one reason or another cannot qualify for standard certificates.

Table 2 (column 7) of the present report shows that it will be necessary to employ in 1949-50 at least 88,260 teachers with substandard certificates. In the late 1930's the 48 states issued only about 2500 temporary certificates each year; in the fall of 1941 the number issued for the current year was estimated as between 4000 and 4500.

The October total of 88,260 may be considered a reasonably accurate estimate of the number of substandard certificates which will be in active use during the present school year. This total - in round numbers 90,000 - means that about 1 in 10 teaching positions will be filled by a person holding a substandard certificate. The October figure does not include the total number of substandard certificates which

The shortage of "special" teachers in secondary schools continues to be large in 75 percent of the states for rural schools and 50 percent of the states for urban schools.

Looking at the situation over the past three school years it appears that a critical rural shortage has been widespread during the entire period despite the continuous employment of thousands of substandard teachers; critical urban shortage is steadily spreading to more and more states even tho the urban school systems continue to draw many regularly certificated teachers from the rural areas.

Needed supply - In 1948-49 state authorities were asked to estimate the number of additional teachers "needed to replace the untrained emergency teachers and to reduce teacher load to 1940-41 levels." In October 1949 the question was changed to ask for the number of teachers "needed to reduce teacher load and to provide adequately for increasing enrolments." The answers, obtained for the two years, are not strictly comparable altho the questions overlap.

The total estimate of "needed replacements," made in October 1948, was 76,153; the comparable figure in October 1947 was 78,810.

The total estimate this year of "needed additional supply" is 35,534; more than 80 percent of this estimated need is in elementary schools. In other words, not counting those among the emergency teachers who should be replaced, the public schools need an additional supply of nearly 36,000 qualified teachers to reduce present teacher load and to provide adequately for increasing enrolments.

If it is assumed that 50 percent of those teaching on emergency certificates should be replaced by fully certificated teachers then the minimum annual demand today is about 80,000; the total annual need may be as high as 100,000.

Teacher preparation - For further evidence of the teacher supply and demand situation state officials were asked how teacher training enrolments in 1949-50 compared with those in 1940-41. The details for the states are given in column 8 of Table 6; the general summary for this year, compared with 1947-48 and 1948-49, is 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
1949-50.....	2	12	34

The shift of a number of states from the "much smaller" column toward the "much larger" column shows a distinct improvement in the outlook for an improved teacher supply situation. It is probable today that the nationwide enrolment in teacher education programs exceeds the prewar total. Unfortunately, higher enrolments at this time provide no immediate relief for the present teacher shortage. Also, higher teacher education enrolments today do not necessarily mean enough qualified new teachers two or three years from now to meet the increasing enrolments in elementary and secondary schools.

In an effort to estimate the situation in the next few years a new question was added to the survey this year. State officials were asked to estimate how well the 1949-50 enrolments in teacher education would meet the demand for new teachers in the next three years. The replies from the individual states are shown in columns 9 and 10 of Table 6; the summarized situation is as follows:

	Number of states in which building shortage is					
	Very small		Considerable		Very large	
	1948-49	1949-50	1948-49	1949-50	1948-49	1949-50
Rural						
Elementary	5	6	31	31	12	11
Secondary	14	4	25	36	9	8
Urban						
Elementary	1	1	25	21	22	26
Secondary	13	4	26	34	9	10

In more than half of the states the building shortage is "very large" for elementary schools in cities; in about one-fourth of the states the elementary school building shortage is also "very large" in rural schools.

As compared with 1948-49, the national situation this year has not changed much for rural elementary schools; it is showing increasing difficulty for rural secondary schools. This change in rural secondary schools may be partly explained by the reorganization of districts, the increasing unwillingness of city school systems to accept pupils from rural areas, the improvement of attendance among rural youth, and some reversal in population movement from rural areas to the cities.

By combining the "considerable" and the "very large" columns there is clear evidence of a nationwide shortage of school buildings in city school systems. This condition at the elementary school level reflects the high birth rates and the lag in school construction during the past decade; at the secondary school level it represents increasing holding power and better attendance in these schools and reduced gainful employment of youth of high school age.

The building situation is especially ominous for secondary schools when consideration is given to the ultimate effect upon them of the enlarged enrolments now passing thru the elementary schools. Lack of sufficient funds today to build enough elementary schools does not promise a hopeful outlook in the period from 1953 to 1960 when these larger enrolments will be in the junior and senior high schools.

Pupil enrolments - In 1939-40, according to the U. S. 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. During the war years each school level dropped approximately one million students - a total loss of about 2,000,000. These total enrolment figures contained some duplicates since the reports were obtained at the end of the year from state departments of education.

According to this NEA series of memorandums the estimated public school enrolments in recent years have been as follows:

Year	Elementary	Secondary	Total
1946-47	17,299,565	6,460,306	23,759,871
1947-48	17,600,000	6,501,300	24,101,300
1948-49			
October 1948	(17,848,913	6,804,470	24,653,383
October 1949	(...	...	24,512,542
1949-50	18,528,539	6,464,584	24,993,123

On the basis of the details reported this year (see Table 4) the national average for instructional staff is estimated as $2985 for 1949-50.

In 1939-40 the average salary of public school instructional staff was $1441. This amount had a purchasing power in prewar dollars of $1440. The estimated average of $2750 in 1948-49 had a purchasing power of $1612 in 1935-1939 dollars.

The estimated average of $2985 for 1949-50 has a prewar purchasing power of $1760 ($2985 divided by 169.6, the BLS index for September 1949; 1935-1939 equals 100; see footnote of Table 4).

Altho the estimated national average salary has doubled in amount since 1939-40 it has gained only $320 in purchasing power. Part of this gain has been offset by the federal income tax, which did not apply to public school teachers prior to 1939. This new obligation has not always been recognized by salary schedules and the public. A teacher with one dependent, earning the average salary in 1948-49 and 1949-50, will pay $221 as his 1949 tax. If this amount is subtracted from his salary for the school year 1949-50 the remainder is worth about $1630 in prewar dollars ($2985 minus $221 equals $2764, divided by 169.6 equals $1630).

Also, the relative value of the average salary of the public school instructional staff has been decreased by the fact that earnings in general have increased more than teachers' earnings. The prewar salaries of instructional staff in 1940 was nearly $150 higher than the average earnings of all employed persons in the United States. But by 1948 (the latest year for which figures are available on all employed persons) the instructional staff average was $194 lower than the average for all employed persons.

The Situation in Alaska, Hawaii, and Puerto Rico

For a number of years there has been an increasing interest in their common problems among the organized teacher associations of the 48 states and similar groups in the outlying areas. Because of these mutual interests this NEA series of surveys has attempted since 1947-48 to obtain information from Alaska, Hawaii, Puerto Rico, and the Virgin Islands. This year no report was received from the Virgin Islands.

Table 8 summarizes the information from three of the outlying areas. The number of substandard certificates in use is relatively small in Alaska and Hawaii; in Puerto Rico more than 1 in 5 teachers holds only a substandard certificate. Salaries in Alaska and Hawaii, not taking in account cost of living, compare favorably with the most fortunate states; Puerto Rico's average competes only with Mississippi's among the 48 states.

The teacher shortage is reported as small in Alaska and Hawaii in both rural and urban schools of all levels. Puerto Rico has a large shortage of rural elementary school teachers and considerable shortage of special secondary teachers both in rural and urban schools. The outlook in the next three years is for a continuation of the shortage of elementary school teachers in all three territories.

The building shortage is serious in Alaska in all types of schools; large in Hawaii's urban elementary schools; large in Puerto Rico's rural elementary schools.

Alaska expects to have all children on full-time schooling by January 1950; Hawaii reports 2.5 percent of its pupils as not receiving full-time instruction; Puerto Rico reports nearly 44 percent deprived of full-time educational opportunities (these figures do not appear in Table 8).

TABLE 1. - ESTIMATED NUMBER OF CLASSROOM TEACHERS, PRINCIPALS, AND SUPERVISORS IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS, 1948-49 AND 1949-50

State	1948-49			1949-50		
	Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7
Alabama	13,100	8,494	21,594	*13,500	*8,500	*22,000
Arizona	3,744	1,230	4,974	3,778	1,292	5,070
Arkansas	8,434	4,835	13,269	8,700	5,000	13,700
California	35,800	24,400	60,200	37,600	25,100	62,700
Colorado	7,662	2,500	10,162	7,850	2,500	10,350
Connecticut	6,682	3,850	10,532	7,037	3,850	10,887
Delaware	972	893	1,865	1,007	918	1,925
District of Columbia	1,742	1,793	3,535	1,758	1,794	3,552
Florida	9,878	7,269	17,147	10,838	7,964	18,802
Georgia	16,270	7,436	23,706	16,970	7,536	24,506
Idaho	3,131	1,486	4,617	3,287	1,511	4,798
Illinois	32,500	13,200	45,700	32,200	13,200	45,400
Indiana	13,000	11,400	24,400	*13,500	*11,500	*25,000
Iowa	13,285	8,254	21,539	*14,400	*8,400	*22,800
Kansas	9,851	6,783	16,634	10,000	6,800	16,800
Kentucky	13,500	5,000	18,500	13,500	5,000	18,500
Louisiana	10,900	4,650	15,550	11,000	4,650	15,650
Maine	4,600	1,600	6,200	*4,650	*1,610	*6,260
Maryland	5,700	4,450	10,150	*5,750	*4,460	*10,210
Massachusetts	13,918	10,224	24,142	*14,000	*10,250	*24,250
Michigan	22,300	14,350	36,650	22,600	14,600	37,200
Minnesota	12,231	8,084	20,315	12,531	8,284	20,815
Mississippi	10,915	4,964	15,879	10,950	5,000	15,950
Missouri	17,168	6,485	23,653	17,200	6,500	23,700
Montana	3,405	1,372	4,777	3,450	1,380	4,830
Nebraska	8,675	3,490	12,165	8,750	3,550	12,300
Nevada	858	334	1,192	880	350	1,230
New Hampshire	1,760	1,210	2,970	1,810	1,210	3,020
New Jersey	17,927	10,212	28,139	19,299	10,527	29,826
New Mexico	*3,600	1,400	*5,000	*3,800	1,500	*5,300
New York	48,775	27,000	75,775	49,750	26,500	76,250
North Carolina	20,514	7,100	27,614	20,800	7,200	28,000
North Dakota	4,862	1,526	6,388	*4,900	*1,550	*6,450
Ohio	24,522	19,399	43,921	24,877	20,422	45,299
Oklahoma	11,123	6,501	17,624	11,400	6,500	17,900
Oregon	6,500	2,800	9,300	7,300	3,200	10,500
Pennsylvania	33,811	25,560	59,371	34,000	25,560	59,560
Rhode Island	2,062	1,770	3,832	2,072	1,773	3,845
South Carolina	11,775	4,562	16,337	12,000	4,600	16,600
South Dakota	*5,100	*1,380	*6,480	*5,120	*1,380	*6,500
Tennessee	16,000	5,589	21,589	16,500	5,696	22,196
Texas	30,875	18,086	48,961	31,400	18,375	49,775
Utah	2,800	2,252	5,052	*2,850	*2,275	*5,125
Vermont	1,720	820	2,540	1,803	799	2,602
Virginia	13,800	6,600	20,400	14,000	6,700	20,700
Washington	10,240	4,811	15,051	10,800	5,000	15,800
West Virginia	10,292	5,391	15,683	10,539	5,514	16,053
Wisconsin	14,000	6,600	20,600	14,000	6,600	20,600
Wyoming	1,768	894	2,662	1,780	895	2,675
Total	594,047	330,289	924,336	608,486	335,275	943,761

* Estimated by NEA Research Division.

TABLE 3. - ESTIMATED VACANCIES AND NEEDED SUPPLY, 1948-49 AND 1949-50

State	Vacancies 1948-49	Vacancies, 1949-50			Needed supply (see note a)		
		Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7	8
Alabama	100	?	?	75	1,500	500	2,000
Arizona	25	5	0	5	*350	*150	*500
Arkansas	175	150	0	150	1,250	250	1,500
California	*6,000	*4,450	*1,850	*6,300	2,180	143	2,323
Colorado	200	?	?	*100	*200	*100	*300
Connecticut	0	0	0	0	430	80	510
Delaware	0	0	0	0	50	25	75
Dist. of Columbia	14	0	10	10	16	0	16
Florida	80	?	?	50	1,200	125	1,325
Georgia	0	?	?	0	*750	*250	1,000
Idaho	50	?	?	20	75	25	100
Illinois	0	0	0	0	170	80	250
Indiana	50	?	?	*30	*350	*150	*500
Iowa	25	?	?	*20	*200	*100	*300
Kansas	170	160	25	185	200	50	250
Kentucky	100	0	0	0	1,500	0	1,500
Louisiana	75	?	?	50	750	250	1,000
Maine	40	25	0	25	*35	*15	*50
Maryland	20	?	?	*20	*850	*0	*850
Massachusetts	0	?	?	*30	300	0	300
Michigan	0	0	0	0	1,900	500	2,400
Minnesota	0	0	0	0	500	300	800
Mississippi	150	75	25	100	900	125	1,025
Missouri	100	25	25	50	500	100	600
Montana	25	25	20	45	100	70	170
Nebraska	0	0	0	0	1,000	200	1,200
Nevada	0	0	0	0	50	15	65
New Hampshire	0	0	0	0	120	50	170
New Jersey	26	9	11	20	230	0	230
New Mexico	10	0	0	0	1,000	150	1,150
New York	0	0	0	0	1,000	0	1,000
North Carolina	50	20	0	20	2,000	0	2,000
North Dakota	258	11	0	11	20	0	20
Ohio	317	0	0	0	500	0	500
Oklahoma	450	?	?	200	800	300	1,100
Oregon	0	0	0	0	175	75	250
Pennsylvania	0	0	0	0	350	30	380
Rhode Island	0	0	0	0	20	5	25
South Carolina	0	0	0	0	350	0	350
South Dakota	200	50	50	100	300	50	350
Tennessee	0	0	0	0	750	250	1,000
Texas	250	?	?	*100	500	100	600
Utah	25	?	?	*15	*225	*75	*300
Vermont	25	0	10	10	35	15	50
Virginia	100	?	?	*100	*750	*250	*1,000
Washington	0	0	0	0	1,000	600	1,600
West Virginia	80	40	10	50	750	250	1,000
Wisconsin	0	0	0	0	1,000	400	1,400
Wyoming	70	40	10	50	100	50	150
Total	9,260	5,085	2,046	7,941	29,282	6,253	35,534

a/ "Needed supply" defined as number needed to reduce teacher load and provide adequately for present enrolments; this number is in addition to the annual replacement supply.

* Estimated by NEA Research Division.

TABLE 5. - ESTIMATED PUPIL ENROLMENT AND PERCENT LACKING FULL-TIME SCHOOLING, 1948-49 AND 1949-50

State	Total enrolled, 1948-49	1949-50 enrolment			Percent lacking full-time schooling[a]		
		Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7	8
Alabama	657,359	*497,000	*163,000	*660,000	?	?	?
Arizona	158,143	*130,000	*30,000	*160,000	0	0	0
Arkansas	417,430	355,000	77,000	432,000	0	0	0
California	1,576,644	1,250,100	420,000	1,670,100	8%	1%	...
Colorado	230,000	*176,600	*55,800	*232,400	?	?	?
Connecticut	259,382	187,600	74,000	261,600	...	...	...
Delaware	43,222	27,500	16,500	44,000	0.32%	?	0.32%
District	90,024	58,393	34,783	93,176	7%	0	...
Florida	471,316	*320,000	*174,882	494,882	...	...	...
Georgia	752,046	600,013	162,033	762,046	0	0	0
Idaho	119,617	92,825	30,817	123,642	?	?	0.10%
Illinois	1,176,140	*872,000	*318,000	1,190,000	1.5%	...	...
Indiana	660,000	*494,000	*184,000	*678,000	...	...	...
Iowa	466,000	*332,500	*139,500	*472,000	...	...	...
Kansas	317,000	231,000	86,000	317,000	0	0	0
Kentucky	546,700	462,000	95,000	557,000	0	0	0
Louisiana	451,000	360,000	85,000	445,000	?	?	?
Maine	164,304	*132,000	*37,000	*169,000	?	?	?
Maryland	315,000	*250,000	*72,000	*322,000	?	?	?
Massachusetts	596,947	437,000	162,000	599,000	?	?	?
Michigan	1,014,370	677,000	358,000	1,035,000	...	...	2%
Minnesota	484,766	373,000	117,000	490,000	Few	?	Few
Mississippi	541,505	464,215	80,290	544,505	2.0%	2.0%	2.0%
Missouri	605,000	470,000	143,000	613,000	0	0	0
Montana	100,200	79,000	25,500	104,500	0.5%	0.8%	2.6%
Nebraska	225,604	163,000	63,000	226,000	0	0	0
Nevada	26,342	21,500	6,400	27,900	0	0	0
New Hampshire	71,808	54,500	18,400	72,900	3%	1%	...
New Jersey	656,880	502,633	145,946	648,579	?	?	?
New Mexico	140,000	119,800	24,600	144,400	?	?	2.0%
New York	1,903,300	1,393,000	546,300	1,939,300	0	0	0
North Carolina	862,000	700,000	173,000	873,000	0	0	0
North Dakota	112,629	*85,700	*27,100	*112,800	?	?	?
Ohio	1,162,818	801,000	390,000	1,191,000	0	0	0
Oklahoma	538,902	429,823	123,719	553,542	?	?	?
Oregon	248,020	201,200	63,600	264,800	?	?	?
Pennsylvania	1,550,947	1,003,978	561,097	1,565,075	?	?	?
Rhode Island	94,550	61,000	34,000	95,000	0	0	0
South Carolina	478,103	379,000	111,000	490,000	0	0	0
South Dakota	114,510	86,000	30,000	116,000	0	0	0
Tennessee	610,752	511,115	120,000	631,115	0	0	0
Texas	1,313,636	1,060,000	275,000	1,335,000	?	?	?
Utah	150,000	*94,000	*60,000	*154,000	?	?	?
Vermont	56,000	43,000	15,000	58,000	0	0	0
Virginia	580,000	*446,000	*142,500	*588,500	?	?	?
Washington	419,995	333,000	108,000	441,000	3.0%	1.0%	*2.5%
West Virginia	429,361	303,044	136,317	439,361	...	...	2%
Wisconsin	497,000	365,000	135,000	500,000	0	0	0
Wyoming	55,270	*42,500	*13,500	*56,000	0	0	0
Total	24,512,542	18,528,539	6,464,584	24,993,123	...	...	...

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 NEA Research Division.

TABLE 7. - ESTIMATE OF THE SCHOOL BUILDING SHORTAGE, 1949-50

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

* Estimated by NEA Research Division. Terms used: Small means "practically none"; Some means "considerable"; Large means "very large."