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### PROJECTIONS OF SCHOOL ENROLLMENT IN THE UNITED STATES 1953 TO 1965\*

(This report contains projections of school enrollment, by grade, to 1965 superseding those given in Current Population Reports, Series P-25, No. 18. It also includes projections of the population of school age from 1953 to 1965, supplementing the figures published in Series P-25, No. 78)

In the past several years, much concern has been expressed regarding the overcrowded conditions of our Nation's elementary schools and the problems of planning for additional facilities to meet the anticipated continued increases in enrollment for the next several years. State and local planning boards now engaged in studying these problems require some estimate of the approximate future level of enrollment at various grades which can be used as a basis for planning purposes. The Bureau of the Census has received many requests concerning such estimates and on methods of preparing them. In response to these requests, the Bureau of the Census is publishing in this report projections of enrollment in elementary and high schools, by grade, for the United States as a whole, for 1953 to 1965, and a general discussion of the methods and assumptions. The projections include parochial and other private schools, as well as public schools. Beginning with 1960, the enrollment in some of the grades is dependent on future births; and here it was considered prudent to show several projections reflecting different assumptions about the course of births.

#### INDICATED CHANGES IN ENROLLMENT

Total enrollment.--According to the projections of future enrollment shown in this report, enrollment in our elementary and high schools is expected to increase by more than 1.3 million annually, a rate of increase of about 4 percent a year, to at least 1959, when this year's crop of babies will be entering school for the first time. It is estimated that about 59 million children will be enrolled by 1959, or one-third more than were enrolled in 1952. For the next several years, the elementary grades will bear the major burden of these increases, although

high school enrollments will also be increasing at a substantial rate. It is estimated that high school enrollment will increase by at least 3 percent annually from the middle of this decade through 1964, with the peak growth rate coming early in the 1960's. During this period the large elementary school classes of the present decade will be advancing into high school. By 1960, our high schools will enroll about 9.4 million students, and, by 1965, 12 million, compared with a current enrollment of about 7 million. Roughly speaking, for every three students now attending high school, there will be four students in attendance by 1960, and five by 1965.

Elementary enrollment, which will be increasing rather rapidly for the next several years, will reach a level of about 30 million in 1959, an increase of almost 8 million in seven years. Changes in total elementary enrollment after 1959 cannot be estimated with any great degree of confidence since they will reflect to a great extent changes in the cohort of persons yet to be born. According to any of the three series given here, all which are believed to be possible and reasonable, it appears that enrollment in elementary grades between 1960 and 1965 will remain, for the most part, somewhere near the 1959 level. The exact changes, however, will depend upon the annual changes in births between now and 1960. None of the three underlying assumptions about the future course of fertility rates allows for increases from the present levels or for decreases to the levels prevailing in the Great Depression.

Enrollment by grade.--The sharpest recent increase in enrollment in any one grade has taken place this past school year (between October 1952 and 1953), when the first grade enrolled about three-

\* Prepared by Meyer Zitter of the Estimates and Forecasts Unit, Demographic Statistics Section, Population and Housing Division.

quarters of a million more children than the previous year, reflecting the upturn in births between 1946 and 1947.<sup>1</sup> Changes in first-grade enrollment after this year will be rather small, and the peak enrollment of children already born will be in 1959, when about 5.2 million children will be enrolled, or about 10 percent more than this year. Since a large majority of students spend only one year in a grade, this change in first-grade enrollment will cause changes in the higher grade as these first graders progress through the school system. Thus, this sharp increase in first-grade enrollment in 1953 will ultimately result in an eighth-grade enrollment in 1960 which will be 43 percent higher than the estimated number now enrolled. Similarly, as this group goes through high school, by 1964 there will be 65 percent more pupils in the fourth year of high school than are now enrolled.<sup>2</sup>

#### METHODS AND ASSUMPTIONS

The projections of school enrollment shown here were prepared by a somewhat different procedure than was used in an earlier Bureau of the Census report published in 1949 (Series P-25, No. 18) presenting enrollment projections to 1960. The method chosen here was one which made maximum use of the detailed enrollment statistics available from the 1950 Census of Population, since it represented the only source from which enrollment data were available for the United States, covering both public and private schools, by age and grade. The specific method used involved projecting age-grade specific enrollment rates for each year to 1965, and applying these rates to single-year-of-age projections of population. The initial age-grade relationships were obtained from the 1950 Census. Because of the high rate of enrollment for children 6 to 13 years old (about 98 percent enrolled) the 1950 rates were held constant to 1965, since it seemed very unlikely that any improvement in these rates would occur. The rates for the high-school-age children, however, i.e., the 14-to-18 group, were assumed to improve annually to 1965 on the basis of past trends in these rates as shown by census figures from 1910 to date.<sup>3</sup> For each of these ages, the rates were projected graphically rather than by exact mathematical methods. The initial high school enrollment rates for the population 19 to 24 years old were assumed to remain constant throughout the projection period, primarily because this group is somewhat outside of the regular school-age population and has relatively little effect on the magnitude of the enrollment figures shown here. The grade enrollment figures thus ob-

<sup>1</sup> The figures for first-grade enrollment include "repeaters" as well as those children entering school for the first time. Although this situation is true for other grades as well, the proportion of "repeaters" is much greater in the first grade than in any other. This fact is reflected in table 1 by the sharp drop in enrollment between first and second grades.

<sup>2</sup> This increase also reflects the slightly higher enrollment rates projected to 1965 for the high-school-age children than the current enrollment rates for this group.

<sup>3</sup> The minimum change was made in the 14-year-olds whose enrollment was increased from 94.8 percent in 1930 to 95.5 percent in 1965; the maximum change was for the 17-year-olds, an increase from 68.2 percent to 75.0 percent in this period.

tained were then summed to yield total enrollments in elementary and high schools, separately.

The population projections to which these rates were applied were based on revised projections of the population of the United States, by age, to 1975, recently published by the Bureau of the Census in Current Population Reports, Series P-25, No. 72. That report gives a detailed explanation of the methods and assumptions used in preparing the population projections. The population projections shown here were prepared in a similar manner using single-year-of-age data. Briefly, the age projections for each year to 1965 were obtained by projecting the July 1, 1952, population (shown in Current Population Reports, Series P-25, No. 73) by single years of age, annually to 1965, using the same mortality rates and immigration allowance as used in the Series P-25, No. 78, report. The data were then adjusted slightly to agree with the published 5-year totals for 1955, 1960, and 1965. The intermediate years were also adjusted accordingly to provide a smooth juncture from year to year.

One other major modification was made in the basic enrollment rates obtained from the census. In preparing these estimates, it was thought desirable to relate them to October of each school year (roughly the beginning of the school year) rather than April, the reference date of the census figures.<sup>4</sup> The age-grade specific rates were, therefore, adjusted upwards somewhat to reflect the higher enrollment levels that usually occur in October as compared to April. This difference is particularly large for the 6-year-olds since there is a "backlog" of these children waiting to enroll at the opening of each school year (children who reached their sixth birthday during the school year or summer months and could not enroll until the beginning of the new school term). The census data, reflecting April enrollment rates, showed about 63 percent of the 6-year-olds enrolled, whereas this rate is usually above 90 percent at the opening of each school year.<sup>5</sup> The rate for this age used here was approximately 93 percent enrolled, rather than 63 percent. As a final step to deriving October enrollment levels, the data for 1952 were adjusted to agree with the results from the October 1952 Current Population Survey and published in Current Population Reports, Series P-20, No. 45.<sup>6</sup> The adjustment ratios required to make the projections for 1952 agree with the current survey results were then used to adjust the projections for subsequent years to bring them into line with the 1952 figures. This adjustment amounted to about 2 percent of the total enrollment.

<sup>4</sup> As indicated below, the figures were tied in with the October 1952 survey results. Since the Bureau of the Census publishes annual school enrollment data relating to October annually, such results may be used as a basis for revising these projections in later years.

<sup>5</sup> See, for example, Current Population Reports, Series P-20, No. 45.

<sup>6</sup> The figures in the Series P-20, No. 45, report have been slightly revised for use here to take account of revised population estimates for this date consistent with the 1950 Census of Population. These new population estimates were not introduced as weights in the Current Population Survey until the January 1953 survey.

## DEFINITIONS AND EXPLANATIONS

This report presents estimates of future enrollment in elementary and high schools of the United States, by grade, for each year from 1953 to 1965. Only one series of enrollment figures is given for the years 1953 to 1959, since these figures are based on projections of the population born before July 1953 and projected enrollment rates, as outlined in the above section. The figures for 1960 to 1965, however, involve projections of cohorts of children yet to be born between 1953 and 1959. Therefore, three series of enrollment projections are shown corresponding to the three series of the projected number of births for these years given in Current Population Reports, Series P-25, No. 78.<sup>7</sup> The three series are labeled as "A and B," "C," and "D," corresponding to the notation used in Series P-25, No. 78, for convenience in identifying the proper population base. The three series shown affect only the elementary grades since persons born after 1953 ordinarily will not enter high school until some time after 1965. As indicated by table 1, a fair portion even of the elementary grades are not affected by these projected births.

The enrollment figures given here were designed to be comparable with data obtained in the Bureau of the Census Current Population Survey. School enrollment data obtained in the Current Population Survey are based on replies to the enumerator's inquiry as to whether the person had been enrolled at any time during the current term or school year in any type of day or night school, public, parochial, or other private school in the regular school system. Such schools usually include elementary schools (but not kindergarten); high schools (including junior and senior high); and colleges, universities, and professional schools. (Note--the projections relate only to persons enrolled in elementary or high schools.) Persons attending "special" schools not in the regular school system, such

<sup>7</sup> Series P-25, No. 78, actually shows four series of population projections to 1975, viz., Series A, B, C, and D, but only three series until 1965, since the projections of births based on assumptions A and B are the same up through 1965. The projected number of births based on Series A, B, C, and D imply the following assumptions as to fertility: Series A - 1950-53 level continues to 1975; Series B - 1950-53 level continues to 1965, then declines to about the 1940 level by 1975; Series C - 1950-53 level declines from 1953 to about the 1940 level by 1975; Series D - 1950-53 level declines from 1953 to about the 1940 level by 1960 and continues at that level to 1975.

as trade schools or business colleges, are not included in the enrollment figures. Persons enrolled in classes which do not require physical presence in school, such as correspondence courses or other courses of independent study, and in training courses given directly on the job, are also not included in the enrollment figures.

Information obtained from reports of school systems are only roughly comparable with the data collected by the Bureau of the Census by household interview because of differences in definition, subject matter covered, and time references. To illustrate, for comparable grades, the enrollment figures of the Bureau of the Census tend to be lower than those in the Biennial Survey of Education conducted by the United States Office of Education, largely because the former refer to shorter time periods and because they count a person only once, although he may have attended more than one school during the reporting period. In the biennial survey, some persons are included in the enrollment figures more than once, such as those enrolled in both public and private schools, and also those enrolled in two different States at any time during the school year. Furthermore, children enrolled in kindergarten are included in the enrollment figures of the Office of Education but not in those of the Bureau of the Census.

Although the method used here yields satisfactory results for the United States as a whole, its applicability will vary from area to area. The problems of preparing enrollment projections for States or smaller geographic areas are substantially more complicated than for the United States as a whole. The influence of factors such as internal migration and different policies and practices affecting retardation, acceleration, or dropping out of school represent some of the areas of differences between national and local projections. It is suggested that if national trends are applied to the study of local situations, the factors mentioned above be taken into account as much as possible and the method and assumptions be adjusted accordingly.

Table 1 of this report shows enrollment projections, by grade, for each year October 1953 to 1965, with a current estimate for 1952. Table 2 shows the underlying single-year-of-age projections of the population 5 to 24 years old, consistent with those in Series P-25, No. 78.

Table 1.--PROJECTIONS OF ELEMENTARY AND HIGH SCHOOL ENROLLMENTS, BY GRADE, FOR THE UNITED STATES: OCTOBER 1, 1953 TO 1965, AND CURRENT ESTIMATE, OCTOBER 1, 1952

(In thousands. See text for brief statement of methods and assumptions)

October 1 of each year	Total enrollment	Elementary enrollment									High school enrollment				
		Total	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Total	Grade 1	Grade 2	Grade 3	Grade 4
1952.....	29,058	22,000	3,983	3,020	3,011	2,851	2,514	2,362	2,159	2,100	7,058	2,062	1,902	1,591	1,503
1953.....	30,569	23,347	4,718	3,164	3,009	2,907	2,691	2,499	2,224	2,135	7,222	2,107	1,953	1,625	1,537
1954.....	31,934	24,546	4,825	3,670	3,147	2,915	2,755	2,677	2,354	2,203	7,388	2,146	2,001	1,674	1,567
1955.....	33,293	25,699	4,807	3,852	3,632	3,047	2,767	2,741	2,521	2,332	7,594	2,222	2,042	1,718	1,612
1956.....	34,623	26,732	4,829	3,859	3,827	3,493	2,887	2,754	2,586	2,497	7,891	2,364	2,120	1,755	1,652
1957.....	36,024	27,707	4,962	3,888	3,845	3,686	3,293	2,873	2,599	2,561	8,317	2,536	2,262	1,829	1,690
1958.....	37,461	28,704	5,091	3,982	3,871	3,714	3,486	3,273	2,707	2,580	8,757	2,601	2,434	1,960	1,762
1959.....	38,821	29,716	5,183	4,077	3,960	3,747	3,521	3,464	3,075	2,689	9,105	2,614	2,491	2,112	1,888
SERIES A AND B															
1960.....	39,970	30,548	5,148	4,144	4,060	3,830	3,554	3,502	3,260	3,050					
1961.....	41,004	31,023	5,120	4,150	4,133	3,923	3,627	3,534	3,302	3,234					
1962.....	41,960	31,292	5,103	4,130	4,132	3,994	3,714	3,607	3,333	3,279					
1963.....	42,792	31,518	5,113	4,115	4,112	3,997	3,781	3,692	3,398	3,310					
1964.....	43,552	31,725	5,131	4,120	4,099	3,979	3,788	3,759	3,476	3,373					
1965.....	44,013	31,868	5,149	4,112	4,098	3,964	3,770	3,771	3,554	3,450					
SERIES C															
1960.....	39,911	30,489	5,093	4,140	4,060	3,830	3,554	3,502	3,260	3,050	9,422	2,733	2,503	2,157	2,029
1961.....	40,846	30,865	5,007	4,113	4,125	3,923	3,627	3,534	3,302	3,234	9,981	3,123	2,631	2,166	2,061
1962.....	41,663	30,995	4,930	4,051	4,095	3,986	3,714	3,607	3,333	3,279	10,668	3,282	3,020	2,288	2,078
1963.....	42,309	31,035	4,876	3,992	4,033	3,961	3,774	3,691	3,398	3,310	11,274	3,224	3,200	2,646	2,204
1964.....	42,835	31,008	4,832	3,942	3,974	3,905	3,756	3,751	3,475	3,373	11,827	3,277	3,216	2,788	2,546
1965.....	43,031	30,886	4,787	3,881	3,925	3,846	3,703	3,743	3,551	3,450	12,145	3,454	3,218	2,789	2,684
SERIES D															
1960.....	39,801	30,379	4,997	4,127	4,059	3,830	3,554	3,502	3,260	3,050					
1961.....	40,564	30,583	4,809	4,046	4,110	3,921	3,627	3,534	3,302	3,234					
1962.....	41,134	30,466	4,625	3,908	4,030	3,972	3,712	3,607	3,333	3,279					
1963.....	41,442	30,168	4,463	3,752	3,894	3,901	3,761	3,689	3,398	3,310					
1964.....	41,561	29,734	4,306	3,627	3,740	3,775	3,701	3,738	3,474	3,373					
1965.....	41,302	29,157	4,150	3,479	3,612	3,641	3,584	3,694	3,547	3,450					

Table 2.--PROJECTIONS OF THE POPULATION 5 TO 24 YEARS OLD, BY SINGLE YEARS OF AGE, FOR THE UNITED STATES INCLUDING ARMED FORCES OVERSEAS: JULY 1, 1953 TO 1965, AND CURRENT ESTIMATE, JULY 1, 1952

(In thousands. Based on population projections given in Current Population Reports, Series P-25, No. 78. See text for brief statement of methods and assumptions)

Year	5 years	6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years	15 years	16 years	17 years	18 years	19 years	20 years	21 years	22 years	23 years	24 years
1952.....	3,798	2,754	2,726	2,745	2,906	2,547	2,386	2,285	2,292	2,253	2,164	2,163	2,148	2,064	2,091	2,167	2,245	2,275	2,303	2,334
1953.....	3,523	3,797	2,754	2,725	2,745	2,906	2,547	2,386	2,285	2,292	2,253	2,165	2,163	2,150	2,066	2,094	2,170	2,248	2,278	2,306
1954.....	3,535	3,527	3,801	2,757	2,730	2,748	2,909	2,549	2,388	2,287	2,295	2,257	2,168	2,167	2,153	2,070	2,099	2,175	2,253	2,283
1955.....	3,508	3,538	3,532	3,807	2,760	2,733	2,752	2,912	2,554	2,391	2,290	2,298	2,260	2,171	2,171	2,158	2,075	2,104	2,181	2,257
1956.....	3,666	3,510	3,540	3,533	3,808	2,763	2,735	2,754	2,916	2,556	2,393	2,292	2,300	2,262	2,175	2,175	2,162	2,081	2,109	2,185
1957.....	3,740	3,667	3,512	3,542	3,535	3,811	2,764	2,736	2,755	2,916	2,555	2,395	2,295	2,303	2,265	2,179	2,180	2,167	2,086	2,114
1958.....	3,846	3,742	3,670	3,514	3,544	3,537	3,812	2,766	2,738	2,756	2,915	2,558	2,396	2,297	2,306	2,269	2,183	2,185	2,173	2,090
SERIES A AND B																				
1959.....	3,750	3,850	3,743	3,672	3,515	3,545	3,538													
1960.....	3,740	3,752	3,851	3,745	3,674	3,516	3,546													
1961.....	3,718	3,741	3,753	3,850	3,745	3,673	3,515													
1962.....	3,733	3,718	3,741	3,753	3,851	3,743	3,673													
1963.....	3,747	3,733	3,719	3,742	3,753	3,849	3,741													
1964.....	3,762	3,748	3,734	3,719	3,741	3,752	3,852													
1965.....	3,770	3,761	3,748	3,734	3,719	3,742	3,753													
SERIES C																				
1959.....	3,703	3,850	3,743	3,672	3,515	3,545	3,538	3,814	2,766	2,739	2,757	2,918	2,559	2,399	2,300	2,312	2,273	2,188	2,190	2,178
1960.....	3,649	3,705	3,851	3,745	3,674	3,516	3,546	3,539	3,814	2,768	2,740	2,759	2,920	2,562	2,402	2,303	2,314	2,278	2,193	2,194
1961.....	3,580	3,650	3,706	3,850	3,745	3,673	3,515	3,546	3,537	3,817	2,767	2,740	2,758	2,924	2,565	2,407	2,306	2,317	2,283	2,196
1962.....	3,548	3,581	3,650	3,706	3,851	3,743	3,673	3,515	3,545	3,544	3,815	2,767	2,739	2,761	2,925	2,569	2,409	2,310	2,322	2,286
1963.....	3,516	3,548	3,581	3,650	3,706	3,849	3,741	3,673	3,515	3,551	3,540	3,816	2,767	2,743	2,765	2,931	2,571	2,412	2,315	2,326
1964.....	3,482	3,516	3,549	3,581	3,650	3,705	3,852	3,744	3,671	3,520	3,546	3,540	3,816	2,771	2,746	2,769	2,934	2,576	2,418	2,320
1965.....	3,442	3,482	3,516	3,549	3,580	3,651	3,706	3,851	3,742	3,674	3,514	3,546	3,540	3,822	2,775	2,749	2,771	2,939	2,582	2,422
SERIES D																				
1959.....	3,623	3,850	3,743	3,672	3,515	3,545	3,538													
1960.....	3,487	3,625	3,851	3,745	3,674	3,516	3,546													
1961.....	3,338	3,488	3,625	3,850	3,745	3,673	3,515													
1962.....	3,222	3,338	3,489	3,625	3,851	3,743	3,673													
1963.....	3,108	3,224	3,339	3,488	3,624	3,849	3,741													
1964.....	2,991	3,108	3,224	3,340	3,488	3,625	3,852													
1965.....	2,867	2,991	3,108	3,226	3,341	3,490	3,625													