



### A Brief History of Education in the United States

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# A BRIEF HISTORY OF EDUCATION IN THE UNITED STATES

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#### **ABSTRACT**

This essay is the companion piece to about 550 individual data series on education to be included in the updated *Historical Statistics of the United States, Millennial Edition* (Cambridge University Press 2000, forthcoming). The essay reviews the broad outlines of U.S. educational history from the nineteenth century to the present, including changes in enrollments, attendance, schools, teachers, and educational finance at the three main schooling levels — elementary, secondary, and higher education. Data sources are discussed at length, as are issues of comparability across time and data reliability. Some of the data series are provided, as is a brief chronology of important U.S. educational legislation, judicial decisions, and historical time periods.

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The education and training of a population, in the United States and elsewhere, is a critical input to productivity and thus to economic growth. Education directly enhances productivity, and thus the incomes of those who receive schooling, by providing individuals with useful skills. Schooling also spurs invention and innovation, and enables the more rapid diffusion of technological advances. The role of education changes with technological progress; some technologies have placed heavy demands on the cognitive skills of workers, whereas others enabled the substitution of machinery for individual skill. Formal education, especially basic literacy, is essential for a well-functioning democracy, and enhances citizenship and community. Religious beliefs have also been important in fostering both public and private education even in the United States with its long history of separation of church and state. Schooling is also a pure consumption good, enabling people to better understand and enjoy their surroundings. Education can, thus, serve a multitude of functions in the economy, polity, community, and religious and personal lives of a people.

It is, perhaps, no wonder that education diffused rapidly among the free residents of the world's greatest nineteenth century democracy. By the 1840s, according to some estimates, primary school enrollment per capita in the United States had exceeded that in Germany, and by this standard Americans had become the best-educated people among those in the world's richer nations (Easterlin 1981). U.S. literacy rates were also extremely high, once again among the free population. America borrowed many educational concepts and institutions from Europe but tailored them in particularly American ways. U.S. schools, at almost all levels, were more practical and applied than those in Europe, yet they were not industrial and were rarely vocational. They became, early on, free and publicly funded and were generally forgiving in allowing youths to enter each level independent of age, social status, previous school record, and sex. After the establishment of publicly funded primary schools, girls were educated for about the same number of years as were boys, and during the early to mid-twentieth century, a greater fraction of girls than boys attended and graduated from secondary schools (<CG.A.11>).

Although it would be useful to present school enrollment, attendance, and literacy rates for the early to mid-nineteenth century, they are still fragmentary and subject to many potential biases. They were not included in the previous edition of *Historical Statistics of the United States*, and although there has been considerable research on the subject in the past twenty-five years, the data remain imperfect. Part of the problem is the incompleteness of the data geographically (see, e.g., Fishlow 1966). Massachusetts and New York, for example, have been studied in great depth for 1790 to 1850 (see, e.g., Kaestle and Vinovskis 1980). But even in those states, enrollment rates that have been estimated for youths 5 to 19 years old are too high be to consistent with independent evidence on the occupations of youths. Perhaps some youths enrolled in school but did not attend, or perhaps school districts inflated enrollments. Even though precise estimates are beyond the task here, there is no widespread disagreement among scholars that by the middle of the nineteenth century U.S. schooling rates were exceptionally high, schooling was widespread among the free population, and literacy was virtually universal, again among the free population (for illiteracy rates since 1870, see <CG.C.2>).

<sup>&</sup>lt;sup>1</sup> Text in <> refers to the series I have compiled for the new edition of *Historical Statistics*. Only those that are **bolded** are included with this essay. See *Table of Contents* at the end of the essay for a complete listing of the education data series to be included in the new *Historical Statistics*.

How the new nation of the United States managed in the short span of a half-century to attain the status of the best-educated country in the world is a rather involved tale. Until the midnineteenth century most elementary education was offered in "common schools" that were publicly operated but often not completely publicly funded. In some districts, parents received a "rate bill" for their children's education. Elsewhere, part of the term was publicly funded and the rate bill supported an extended term. In large cities, such as New York City, there were, early on, pauper schools paid for by public funds and private schools for the more fortunate. The details are complicated by the highly local nature of education in the United States. What is perfectly clear, however, is that virtually every state in the nation shifted to publicly funded education at the elementary or common school level in the decades following the American Civil War.

The claim that Americans became the best-educated people in the world by the midnineteenth century may, however, be somewhat overstated. Some European countries had, until the beginning of the twentieth century, far better institutions of higher education than did the United States. But European educational systems were, with few exceptions, elitist well into the twentieth century. Both secondary and higher education was reserved for those with exceptional abilities, stemming from both family background and innate differences. The U.S. system of education, in contrast, was almost at its start distinctly egalitarian. Americans eschewed different systems for different children, and embraced the notion that everyone should receive a "common," unified, academic education. There were gaping holes in the system, of course. Slaves received virtually no formal instruction, especially after southern states passed laws that prohibited the teaching of slaves to read (the first was passed in 1830). Free blacks, even in the North, were in segregated schools, and southern schools remained *de jure* segregated even after the famous *Brown v. Board of Education* (1954) case judged such laws to be unconstitutional. And there is also the difficult issue of *de facto* segregation by race, immigrant status, and income.

The substantial levels of schooling and literacy in the nineteenth century United States were achieved within a highly decentralized educational system. The federal government today still accounts for a small fraction (7 percent) of primary and secondary educational expenditures, and even the states do not provide the majority of school revenues (<CG.D.1>). School finance and curriculum decisions are the domain of school districts, and the origin of these districts is yet another detail from the earliest years of the Republic's educational history.

As the new nation expanded, the township model of school organization, begun in New England, was adopted by many states. But most new states were too rural for township schools, and, instead, created even smaller jurisdictions. School districts, first counted by the Office of Education in the early 1930s, numbered then about 128,000 (<CG.A.1.1>). Some were not fiscally independent, in the sense of setting their own tax rates, but, rather, had tax rates set by larger governing units, such as counties or townships. But many were fiscally independent. Thus, even by the third decade of the twentieth century, the United States had an enormous number of school districts with independent decision-making powers. America's large cities

had, by that time, already experienced major school district consolidation and virtually all cities with populations exceeding 20,000 people had been consolidated into one school district by the early 1900s. Consolidation of rural districts occurred slowly until the 1950s. The central point is that most of the decisions regarding elementary and secondary education in America occurred at relatively disaggregated levels — cities, towns, and rural communities.

The large number of school districts across the United States, the vast majority of which were fiscally independent, means that decisions concerning resources devoted to schools, teachers, education generally, and curriculum were made locally. In many European countries, such decisions were made at a much higher level, often nationally. It is possible that the more disaggregated level of educational decision-making fostered education for the masses, particularly during the nineteenth and the early-twentieth centuries. Even though some districts were considerably poorer than others, the greater homogeneity within the districts could have greatly enhanced school expenditures. The reasoning is simple. Education, particularly at the secondary level, was primarily a "private good" that was publicly provided. Families could always opt out of the public system, although pay taxes to it, and send their children to private school. The greater the homogeneity within the community concerning "tastes" for education, the more citizens will vote to spend on education. If the decision-making unit includes families with widely differing incomes and tastes for education, it is possible that both the bottom and the top of the distribution will opt out of the public education system, leaving the middle group with a poorly financed or non-existent school system. Thus, greater local governance could account for the more rapid and more complete spread of secondary schooling in the United States than in Europe in the early to mid-twentieth century.

The greater level of education in the United States than Europe until late in the twentieth century is, of course, due to a host of factors and not just the decentralization of educational decision-making. These other factors include higher levels of wealth, lower relative opportunity cost for youths, competing religions that valued the ability of the laity to read the bible, and the ideology of democratic ideals of universal literacy (Goldin and Katz, 1997, 1999).

#### II. Educational Institutions and Education Data

The large number of school districts and the highly localized nature of school finance and administration in the United States complicate the compilation of education data for the United States. Rather than being collected by one national agency or even many state agencies, most of the series are built up first at the state level from the localities and then at the federal level from surveys of the states. The procedure differs from series to series, although most come from the states through the federal government. The federal government began to collect data on education from the states just after the establishment of the Office of Education in 1867.

The Office of Education has had a rather complicated history but is of sufficient importance to the data series that it shall be told in brief. The Bureau of Education, the forerunner of today's Department of Education, was established in 1867 and became the Office

of Education in 1869, an agency of the Department of the Interior where it stayed for 70 years. It was known as the Bureau of Education for those 70 years, but in 1929 it was renamed the Office of Education. In 1939 it became part of the Federal Security Agency and was, in 1953, included in the new agency of Health, Education, and Welfare (HEW). The Department of Education became a separate cabinet-level agency in 1980. Each of the states also eventually appointed a superintendent or commissioner of education and founded an office, bureau, or board of education. The first state board of education was established in Massachusetts in 1837 and was headed by Horace Mann, an individual best known for his tireless crusade for free common schools.

Most of the data in the series begin with the establishment of the federal Bureau (or Office or Department) of Education. Thus the earliest date for education series is around 1870 (e.g., <CG.A.2>). As noted before, this is especially unfortunate with regard to the history of the common and elementary schools. The data for secondary school education suffer less from this omission since the expansion of high schools began in the late nineteenth century. Private academies, functioning much like secondary schools, proliferated in the mid-nineteenth century but no hard data can be found on their numbers and impact. Institutions of higher education in the United States date back to the opening of Harvard University in 1638. But at the aggregate level they, too, can be examined quantitatively only after 1870. As with secondary schools, there is little lost since only a small fraction of Americans could have been attending colleges and universities before.

Despite various problems in assembling the education data series, the relative stability and uniformity of U.S. educational institutions has simplified the task. The levels of education in the United States have not varied much across time and space. "Common school" generally includes youths between ages 6 or 7 and 14 or 15 (or older, if the youth had not attended regularly). That is, common school generally means grades 1 to 8, even though the schools were "ungraded," occupied a single room, and had but one teacher. Common schools were mainly found in the "open country" or rural areas, and continued to be numerous until the mid-twentieth century (<**CG.A.1.6**>). Youths in rural areas often went to common school for longer than eight years, but this was generally remedial. Only rarely did it mean they were being taught at the secondary school level (see, e.g., Goldin and Katz 1999b). Towns, villages, and cities had graded elementary schools.

Secondary or high school generally means grades 9 to 12, or ages 14 or 15 to 17 or 18. At the start of the "high school movement" in the early 1900s, however, many high schools in small towns covered only grades 9 to 10 or 11. Several curriculum changes have altered the two levels, elementary and high, across the twentieth century. The "junior high school" was introduced in 1909 (in both Columbus, OH and Berkeley, CA) and spread rapidly to other districts. It was adopted to keep pupils, who would otherwise leave at age 14, to grade 9, award them a diploma, and give them practical training, for example in shop and home economics. Since junior highs included grades 7 to 9, elementary school was shortened to grades 1 to 6, and high schools became "senior highs," covering from grades 9 to 12. This system is known as "6-3-3," and the previous one as "8-4." At various points in the past century, some districts returned

to the previous model whereas others eliminated the junior high school and introduced the middle school, encompassing grades 5 to 8. Curriculum changes are far more difficult to track, as will be discussed in the section on secondary schooling.

Most of the series presented employ the school, rather than the calendar, year. That on primary and secondary school enrollment, however, switches in 1965 to "opening fall" enrollment (<**CG.A.3**>) and that for higher education switches in 1946 (<**CG.B.2**>). The distinction concerns the period within which enrollments are accumulated. "Opening fall" enrollment is believed to be the more accurate method and counts only those students enrolled at the beginning of the school year, whereas the other method accumulates enrollments during the entire year. The difference is trivial for elementary and secondary school students. For college and university enrollments, however, there could be more substantial differences if students transfer from one institution to another.

Each state, today and in the past, determines what constitutes promotion and graduation. With the establishment of the state universities, graduation from high school often implied automatic college admission. Thus states took great interest in the level of proficiency required to graduate from high school. Similarly, promotion from eighth grade in many states meant admission to public high schools and many states also took an interest in that transition. In the early twentieth century, particularly after World War I, various states pioneered in the testing of students. A version of the well-known Iowa Test of Educational Development began in the 1920s, but was not administered statewide for another decade. The New York and California Regents also produced their own exams. Only scant evidence, however, exists on time trends regarding elementary and secondary school exam scores (Bishop 1989). One aspect of the history of promotion and graduation is clear. There was considerable age-in-grade retention until the mid-twentieth century when automatic promotion became a more common phenomenon. Retention rates can be computed using <CG.A.3> on the fraction of pupils continuing from grade 5. Because these data are for public school students only, the transit of private students (generally Catholic) to public schools after grade 8 complicates the calculation.

Higher education, at least since the mid-nineteenth century, has been a four-year program, although there are various exceptions and some important changes. One exception is that until the twentieth century, many professional degrees (e.g., law, medicine) did not require a baccalaureate degree and thus the first professional degree often included a B.A. Because of this feature, the series on undergraduate enrollment and degrees includes first professional degrees until the mid-twentieth century. Junior (or community) colleges have been two-year institutions ever since the beginning of the twentieth century. Normal (or teacher-training) schools were often two-year programs but became four-year in some states starting in the 1920s and in most others in the 1940s and 1950s. Teacher-training institutions complicate the higher education data to a considerable degree since the number of women enrolled in them was substantial and program length was not always specified. For that reason, some researchers exclude them in the older data but include them after the 1940s (e.g., Goldin and Katz 1999a).

Schools at all levels can be under public or private control. At the elementary and secondary levels, the type of control is generally unambiguous in the data series. This is especially true with regard to denominational institutions. The vast majority of private kindergarten to twelfth grade (K-12) schools are denominational. (It is likely that control will be a more ambiguous concept in the future if school vouchers can be used in denominational schools, as they have been in a recent policy experiment involving Catholic schools.) Control of higher education has been a somewhat less transparent concept. In the first place, some institutions of higher education that were under private control received the initial Morrill Land Grant (1862) funds from the state (e.g., Cornell University, M.I.T., Yale, Rutgers). More important, the federal government supports research at private institutions and allocates student aid on the basis of need, not the control of the institution. All the G.I. Bills, for example, paid private and public tuitions, and Pell Grants subsidize students at a range of institutions. Thus, the control of the institution is not necessarily coterminous with the source of funding. It never was. Harvard University, for example, received funds from the Massachusetts colonial government and afterwards from the state until the early nineteenth century.

This essay ends with an extensive "note on the sources," but there are some details that must be addressed before. As already mentioned, most of the sources are the "administrative records" of localities and states. That is why the existence of the U.S. Bureau of Education, which compiled these data, is important to the construction of the series and why the earliest date for the series is about 1870. These administrative sources provide "flow" data, rather than "stock" data. That is, they give contemporaneous information on students, teachers, schools, finances, and so on, rather than the number of years of schooling of the population or the number of individuals who ever taught, to provide two examples. They reveal little about student characteristics in terms of age, sex, race, ethnicity, and family background, although some are occasionally indicated. Racial segregation of public schools in the South, for example, allows the calculation of high school graduation by race after 1930 (<CG.A.17>). Some administrative data are given by sex (e.g., <CG.A.11>). Because the administrative data are rarely given by age, the contemporaneous "flow" numbers have to be divided by the relevant population group to obtain rates.

Other potential sources of education data are the U.S. census, or Current Population Survey (CPS), or state censuses. The U.S. census, ever since 1850, has asked whether an individual had attended (almost any kind of) school (for at least one day) during the preceding year. But it was not until 1940 that the U.S. census, and later the CPS, asked the "stock" of education, that is the accumulated years of school or "highest grade completed" of the population. Only two states (Iowa and South Dakota) asked questions on educational attainment before 1940, and research on the subject has been done using the Iowa State Census of 1915 (Goldin and Katz 1999b).

The relationship between education and income, at the individual level, can be presented for the entire United States only beginning with 1940 (<CG.F.1> and <CG.F.2>). But even the 1940 data are subject to considerable bias. Although the 1940 federal population census was the

first to inquire of income and education, both variables contains omissions and biases. Wage and salary income was requested in 1940, but that from self-employment was first asked in 1950.

The education and income series (<CG.F.1> and <CG.F.2>) use comparable income measures for the decennial census years 1940, 1950, and 1960 (wage and salary income) and then switch, by necessity, to a more inclusive measure of income when using the Current Population Survey. Caution should be exercised in using these data to make inferences about the role of education in enhancing income. One reason is that the aggregate population is used (males greater than or equal to 25 years old) and there were large compositional changes between census years. From 1940 to 1950, for example, the fraction of young men with high school diplomas increased substantially. Because these persons had little job market experience, their average earnings were lower than those of older high school graduates and not much higher than those of older individuals without a high school diploma. The compositional change means that, in times of rapid educational advance, the role of more education (here a high school diploma) will not be as apparent than had the series been divided by age.

"Highest grade completed" was asked in 1940, but many older Americans had not attended graded schools and some went to school for more years than grades. There is considerable evidence that the 1940 census overstates the high school graduation rate of older Americans to a considerable degree (Goldin 1998). The graduation data are often inconsistent with those from administrative data, although those for lower grades are not. Educational data from the census (and also those from the Current Population Surveys) are also important because they allow tabulation of education by individual and family characteristics (e.g., <CG.A.4>).

Even though the U.S. population census asked whether an individual had attended school during the previous year, the answers overstate the number of youths who were actually attending formal day school for at least several months during the year (they are, however, given for 5 to 19 year olds in <**CG.A.15**> and graphed in Figure 1). The length of time attended, as previously noted, was "for at least one day" and the type of school was virtually any, including night and commercial schools. Thus, for most of the period under consideration, the administrative data must be relied on for virtually all the series. It should be noted that the terms enrollment and attendance are used interchangeably in this series. Although the census question concerned attendance of school for at least one day, the convention is to use the term enrollment in this case.

Schools took various forms over the period in question. The common school was a simple one-room structure, often situated on someone's quarter section or farm. The town school in almost any era would be recognizable to those reading this essay, although there would be various differences across time. One is that elementary and high schools, early on, were often in the same building. Thus, it is impossible to produce separate series on these schools until the 1930s (<CG.A.1>). Some states listed virtually all elementary schools as high schools, whereas others had state laws requiring secondary schools to be separate structures. Similar ambiguities plague issues regarding instructional staff. States each had regulations concerning who could

teach and what the prerequisites were. But these varied enormously across space and time. The series presented here accept the definitions in the administrative records. Someone who taught secondary school students was a secondary school teacher. But there are times, when even this distinction is opaque.

One last important data issue must be mentioned. Education is "life-long learning," and much of it does not take place in formal settings and is, thus, difficult to track. The series presented here will, by necessity, omit on-the-job training and also proprietary training institutions. It is possible to study the latter for much of the twentieth century because the Office of Education often collected information on them. Commercial schools proliferated in the 1910s and 1920s, but there is, at present, no readily available, comprehensive, and reliable series on them.

#### III. The Three Transformations of American Education

Schooling is intrinsically a hierarchical process both in terms of how one is taught and how teachers are trained. Thus any state or nation that has elementary schools must have teachers with knowledge exceeding that of the highest grade being taught in them. The teachers, in turn, would have to have been trained by someone with even greater knowledge. Thus, although the United States underwent three transformations of education (primary, secondary, and tertiary), all three levels were in place simultaneously for all of U.S. history. Europe, to be sure, was relied on in the nineteenth and early twentieth centuries particularly at the level of higher education. America imported instructional staff for colleges and universities and also exported students (many of whom returned as trained academics). But the fact that many American institutions of higher learning were founded far in advance of the third transformation is an indication of the importance of the highest levels of education for training at the most elementary.

The periodization of the three transformations dates the completion of each schooling level by the majority of youth. The completion of each of the transformations can be thought of as the moment when an education level was available and taken up by the "masses" or, put another way, when "mass education" reached that level. The first transformation brought the bulk of youth through common or elementary school (eighth grade) and occurred during the nineteenth century. The second transformation brought the majority of youth through secondary or high school and occurred in the first half of the twentieth century. The third transformation, still on-going, is bringing the majority of young adults through four-year higher education.

#### A. Primary or Common School and Elementary Education

The first educational transformation occurred over an extended period but moved rapidly during the middle of nineteenth century when fully free, publicly funded common schools diffused throughout the nation. Although compulsory education laws were also passed during the period of the common school transformation, it is believed that they lagged rather than led it. That is, the state laws were passed only after the majority of youths had already gone beyond the

age of compulsion in the laws. As noted previously, the most interesting period of common school diffusion predates the era of readily accessible data.

Almost all of the data series concerning K-12 education begin with 1870. The exception is that for school attendance (for 5 to 19 year olds) from the U.S. federal population census (<CG.A.15>, see also Figure 1). Beginning with the collection of the administrative information by the Office of Education in 1870, data exist on public and private enrollments by level or grade (<CG.A.2>), where common school students are classified in the K-8 group. More detailed data on students by grade can be computed after 1910 for public school students (<CG.A.3>). But it is not until the late 1910s, with the publication of the *Biennial Survey of Education in the United States* (see *A Note on the Data Sources and Data Issues*) that data are available to calculate student-teacher ratios (e.g., <CG.A.2.5>). Because the age of students was not collected in most administrative data, rates of attendance have to be computed by assuming an age group (e.g., 14 to 17 for secondary school) and using the data on population by age (and sex and race) contained in another chapter of *Historical Statistics*.

According to the data in **CG.A.2**> and **CG.A.15**>, the transformation to "mass" primary school education (among the free population) was completed by the mid-nineteenth century. The transition, moreover, was similar for males and females (see Figure 2). Although none of these series reveals the precise fraction of males and females at different ages attending school, considerable work by educational historians has shown that, at least in the elementary and secondary grades, females attended school for more months than did males for much of the period. Even though a large fraction of youths were enrolled in and attending school, the attendance of those enrolled was between 60 to 70 percent of the school year from the 1850s to the 1910s or between 80 and 110 days per year (**CG.A.6.3**>). All the data, as previously reported, regrettably say nothing about the pre-1850 period.

Among the more important changes in elementary public school education since 1970 has been the increase in the fraction of public school youths in "special education programs" (<CG.A.5>), the unionization of teachers (<CG.A.16>), the decrease in classroom size (<CG.A.2>), and the increase in real expenditures per child (<CG.D.2>). The increase in real expenditures per child should not be too surprising since the real cost of teachers, (nominal amounts are given in <CG.A.7> which must be deflated by a price index series in *Historical Statistics*), rises with general levels of productivity. But simple decompositions show that the increase in expenditures per pupil cannot be fully explained by the increase in the real wage of teachers, the decrease in classroom size, and the increase in more costly special education students. Administrative costs per pupil, it appears, have enormously increased. Another important recent change is the increase in pre-school education (<CG.A.14>).

Most education data measure the quantity of schooling received, in years or grades. The quality of education is an equally important, yet less transparent, aspect. Quality can be proxied by the student-teacher ratio (**CG.A.2**>) or the length of the term (**CG.A.6.2**>), to mention two measures that can be used over the long run. Current concern with K-12 educational quality has focused on another measure, that of test-scores. Among the most widely used is the National

Assessment of Educational Progress or NAEP (<CG.A.13>). Although the United States has done poorly in international test comparisons, NAEP scores have generally risen since the 1970s. A reconciliation of these two observations is yet to be accomplished.

#### B. Secondary or High School

The second transformation of American education was the "high school movement" and it was the most rapid of the three. In 1910 less than 10 percent of all U.S. youths graduated high school, but by 1940 the median youth was a high school graduate (<**CG.A.11**>). And in certain parts of the nation (e.g., the Pacific, West North Central, and New England states), the "high school movement" was even more rapid (see <**CG.A.17**> and Figure 3). In those states, graduation and enrollment rates were as high in the 1930s as they would be until the 1960s (<**CG.A.17**> and <**CG.A.18**>). Because the "high school movement" began in the early part of the twentieth century and secondary school attendance was relatively meager before, little is lost from the late starting date for the series. (On the "high school movement" see Goldin 1998.)

The secondary school graduation rates in Figure 3 (and <CG.A.17>) are computed by dividing the administrative data on high school graduates by the number of 17 year olds in the census division (aggregated up from the states). The secondary school enrollment rates are similarly computed, but the denominator is the number of 14 to 17 year olds. The fact that some students were older than 17 or younger than 14 may trivially affect the calculation. More important is that the state population data are available only for decennial census years and must be interpolated between them.

It may appear odd that the contemporaneous high school graduation rate, graphed in Figure 3, is higher in 1970 than it is after. Those data, it will be recalled, were obtained from administrative sources. Data from the major household survey of population — the Current Population Survey — show, to the contrary, that the fraction of 25 to 29 year olds, for example, claiming to have graduated from high school does not decline from 1975 to 1985 (corresponding to the approximate year of high school graduation of 1966 and 1976). Rather the fraction graduating high school increases and attains a level that is about 7 percentage points higher than in the administrative records for the same birth cohorts. That is, the contemporaneous public and private high school graduation rate in 1985 is about 73 percent (see Figure 3), but is 86 percent for the same cohorts in the household survey. Most of the difference in the two numbers is accounted for by the General Education Development (GED) credential (discussed below). The administrative records on high school graduation capture only those who receive diplomas from regular secondary schools, whereas the GED is an examination that can be passed later in life by those who dropped out of high school.

The series in <CG.A.17> and <CG.A.18> include public and private secondary school students. Also included are college preparatory students in institutions of higher education. Before high schools spread across the nation, many public and private universities and colleges had their own preparatory programs. Youths often entered these programs straight from elementary school or after several years at their local high school. The fraction of secondary

school graduates coming from all private programs, including an estimate of those from the preparatory departments of colleges and universities regardless of control, is given in <CG.A.19>.

Secondary schooling spread rapidly in the early twentieth century because schools were built and students in districts already having high schools were enticed to enter and remain. The increased demand for white-collar workers and for trained blue-collar workers spurred an interest in and demand for schooling beyond eighth grade. But secondary schools in the nineteenth century were institutions that generally trained youths to attend university. They often prepped pupils to pass the entrance examination of the local private college or the state university, if it had one. High schools were reinvented beginning in the late nineteenth century to be places of practical and applied learning. They also, of course, retained courses of study to train youth to enter institutions of higher education.

Curriculum is difficult to track because of changes in subject matter, among other details. The Office or Department of Education requested information from secondary schools from 1889-90 to 1981-82 on the number of pupils taking various subjects. These data are measured in "pupil-courses" and are expressed in <**CG.A.9**> as the percentage of pupils taking a course. A course that occupied one hour per week is, by necessity, given equal weight to one that occupied five hours per week. Thus the total can exceed 400 percentage points, even if each student took an average of four full-time courses. The data were systematized in several ways beginning in 1982. Courses were measured in "Carnegie units," where each Carnegie unit is a one-year course, generally equal to five 45-minute periods per week for the entire year (<CG.A.10>). The course of study for the entire high school program (at graduation) is given in <CG.A.10>, rather than an average for those currently in school (as often the case in <**CG.A.9**>). Whatever the defects of the historical data, they clearly show that the secondary school curriculum became more practically based and also broader in academic subject matter sometime in the 1920s.

As in the first transformation of American education, one may wonder what the effects of state legislation were in the "high school movement." All states passed compulsory education laws at some point in their history and most were accompanied by related legislation regarding child labor. The laws are complex and, prior to the late 1920s, the maximum age of compulsion was generally not binding. Rather, youths could be excused if they obtained a labor permit and had attained some minimum level of schooling. Although the jury is still out, there is considerable evidence that compulsory education laws did not "cause" much of the high school movement. States did, however, pass other legislation that aided secondary school expansion. One neglected piece of legislation is the "free tuition law." Because school districts were small and numerous in rural areas, some districts would have had high schools while others would not have. Families would be responsible to pay tuition to the district with the high school if they lived in a district without one but sent their child to the school. The "free tuition laws" made the sending district responsible for the payment of tuition. Most of these laws were passed in the 1910s and 1920s; Nebraska, for example, passed a "free tuition law" in 1907 and Iowa did in 1913.

A more recent development in secondary schooling is the General Educational Development (GED) credential. The GED was instituted during World War II (in 1942) to give veterans without a high school diploma a chance to earn credit for their informal education outside school. Civilians were allowed to take the examination in 1952. The data on individuals taking (and passing) the exam exist from 1971 and are given in <CG.A.12>.

At the start of this essay, it was noted that, by most accounts, the United States exceeded all other nations in mass elementary school education by the 1840s. It not only retained that lead, but with the "high school movement," it increased it substantially (Goldin and Katz 1997). Although Germany instituted various types of secondary schools in the early twentieth century, neither it nor any other European country was able to put their "masses" through non-vocational full-time secondary school until well after World War II. Thus, when the United States passed the G.I. Bill of Rights (1944), it could promise to put returning veterans through college because the median eighteen year old was already a high school graduate. No other country could accomplish the same task nor would for some time after.

#### C. Tertiary or Higher Education

The third great transformation of American education — that to mass higher education — has been the most prolonged and is still ongoing. Part of the reason for the length of the transition, as noted previously, is that lower levels of education need higher ones to train teachers. All nations require institutions of higher education long before they are to be transformed into nations of highly educated people. Institutions of higher education serve many purposes, of course. Early in American history, for example, these institutions trained ministers, as well as lawyers, and military and political leaders.

Institutions of higher education (B.A. granting, four-year) increased steadily in numbers in the United States across the nineteenth century. There was a large burst of activity in the 1870s in the public sector and in the 1890s in the private sector (Goldin and Katz 1999a, analyze institutions surviving to the 1930s). The increase in public universities in the 1870s owes to the celebrated Morrill Land Grant Act of 1862, one of many pieces of legislation passed during the Civil War's 37<sup>th</sup> Congress that had been previously defeated or vetoed. The Morrill Land Grant Act gave scrip in the form of federal land to each of the states "for the endowment, support and maintenance of at least one college where the leading object shall be — without excluding other scientific and classical studies and including military tactics — to teach branches of learning as are related to agriculture and mechanic arts" (Nevins 1962). The institutions could be publicly controlled, or privately controlled, as they were in states such as New York and New Jersey.

The Morrill Land Grant Act did not, however, set up the first state universities. By 1862 the majority of existing states outside the northeast (19 out of 24) already had a state institution of higher education; some states (e.g., Virginia, Ohio) had more than one. States used their Morrill funds in various ways. Some established their first institution (e.g., Nebraska), some gave the money to the existing state institution (e.g., Wisconsin), and others established an additional university (e.g., Michigan). It should also be noted that the Morrill Land Grant Act of

1862 was but the first of several related acts. An amendment to the original act extended the land grants to states as they entered the union. The second Morrill Act in 1890 set up annual appropriations to the land-grant institutions, and was indirectly responsible for establishing those now termed the "historically-black" institutions of higher education by denying funds to states that did not provide facilities to black students (<CG.B.7>).

The series in <CG.B.1> on the number of institutions of higher education contain several complicated features. One concerns teacher-training institutions, also known as normal schools and teachers' colleges. Teachers' colleges often began as 2-year institutions but later became 4-year institutions, able to grant the baccalaureate degree. Many of the state teachers' colleges were later made into the second tier of the state university system (as, for example, in California and Illinois) or the state university system itself (as in New York State). Thus, in the absence of detailed knowledge of the type of degrees awarded in each year, it is impossible to separate the institutions into 2-year and 4-year. Another complication is that state universities often establish separate campuses across the state. Before 1975 these branch campuses were treated as part of the central university, whereas after 1975 they are treated as separate institutions (see demarcation in <CG.B.1>).

The series on the enrollment of individuals in institutions of higher education (<CG.B.2>) is more complicated than that for elementary and secondary schools. In the first place, many students in their first professional degree program were simultaneously in an undergraduate program, until the middle of the twentieth century. Undergraduates and first professional degree students are, therefore, combined for consistency in the historical series. The computed undergraduate enrollment rates (<CG.B.2.2>) are therefore more inflated after the 1940s, when few professional students would not have had an undergraduate degree. Another difficulty is deciding what age group to use in the denominator. College students more widely disbursed by age than are those in K-12, and the inclusion of the professional and graduate students means that a wider age group is required. The standard is to use 18 to 24 year olds.

The main gender difference in education in U.S. history has been the greater enrollment of males in colleges and universities, particularly 4-year institutions. But ever since the early 1980s women have enrolled in institutions of higher education and received B.A. degrees in greater numbers than have men (see <CG.B.3> on degrees, and <CG.B.2> on enrollment). As can be seen in Figure 4, the fraction of 20 to 24 year olds enrolled in school is now greater for females than for males. It should also be noted in Figure 4 that the fraction of males enrolled in school has only recently exceeded the peak level of the late 1960s (the same is true for 20 to 24 year olds). This anomaly is mainly due to the war in Viet Nam and draft deferments.

The transition to mass higher education in the United States owes to several factors. One is the increase in high school graduation early in the twentieth century. Another is the G.I. Bill for World War II and Korean veterans. Recent research has shown that these G.I. Bills increased the level of undergraduate education above what would have been the case in their absence (Stanley 1999). Further, they were more than compensatory. A somewhat higher fraction of men went to college than had they not served in these wars. The spread of the Scholastic

Aptitude Test (SAT) particularly in the 1940s also democratized the admissions procedure for college. Finally, the explosion of public junior colleges (also known as two-year or community colleges, see <CG.B.1>) in the 1970s allowed even the financially and scholastically constrained individual to continue in higher education.

#### IV. Interpretation

This essay has emphasized the leadership of the United States in education — the rapid increase in schooling in the early nineteenth century, the widening lead in the early to midtwentieth century, and the high levels of tertiary education in the post-World War II period. By the very end of the twentieth century, however, many of the world's rich nations, and even some of the "newly industrialized economies," are closing the gap with the United States in educational quantities. More important, they are rapidly exceeding the United States with respect to educational quality, and even with respect to quantities adjusted by quality, although this concept is difficult to measure.

Many of the virtues of the U.S. educational system, that served Americans so well in the past, are fast becoming disadvantages and drawbacks. The extremely open and forgiving system that enabled generations of Americans to continue to secondary school and college now means that there are no rigid standards and no national examinations. The upper half may be doing well, but the bottom half is often left behind in the United States. In many European countries, the bottom half is challenged and sorted by standardized tests or offered technical tracks. The localized nature of educational finance in the United States may have advanced schooling in previous decades. But it is, more and more, coming under attack for its inherent inequities. Rich districts can afford good schools but poor districts cannot. School finance equalization attempts to reallocate funds within states. But it often has deleterious and unintended consequences leaving the poor no better off than before and occasionally worse off.

Describing educational change in American history is a much easier task than understanding why change occurred and what its consequences have been. With regard to advances in schooling, it is clear that there is a complicated interrelationship between the demand for educated workers and citizens, and the public's response. Legislation, as pointed out throughout this essay, has been important at various critical junctures in U.S. history, was *not* the driving force behind "mass education." The public provision and funding of education, however, have been strong positive forces in spurring the three great transformations of American education.

There are many studies (e.g., Goldin and Katz 1999b) demonstrating positive relationships between education and income and between schooling and productivity. Many countrywide studies also reveal strong relationships between education and income and between schooling and economic growth. Several potential biases plague these fine research efforts. Though we still do not know for certain, it would appear that the extraordinary record of economic growth, income, and productivity throughout U.S. history owes something to its lead in education for the masses.

#### A Note on the Data Sources and Data Issues

The majority of the series are updated versions of those in *Historical Statistics* (U.S. Bureau of the Census 1975). Many, however, are new to the volume. Most, although not all, of the series are updated annually by the National Center for Education Statistics (NCES) of the U.S. Department of Education and are published in the *Digest of Education Statistics*. Tables from recent editions of the *Digest of Education Statistics* and other NCES publications can be accessed at <a href="http://nces.ed.gov/">http://nces.ed.gov/</a>. In the process of updating, the NCES often revises previously published data and thus these series may in the future be altered in small ways by NCES. NCES also published *120 Years of American Education: A Statistical Portrait* (U.S. Department of Education 1993) and its editor, Thomas Snyder of NCES, was enormously giving of his time during the preparation of the new *Historical Statistics* education series. The series presented here borrow from some of the tables in *120 Years*, which are updated versions of the historical series in the *Digest* and many from *Historical Statistics*.

The primary sources for most of the series begin in 1869-70 with U.S. Office of Education, *Annual Reports of the Commissioner of Education*. These reports extend to 1916-17 when they were superseded by the *Biennial Survey of Education in the United States*. The *Biennials*, published for the even numbered school year from 1917-18 to 1957-58, include general information on the U.S. school systems, reports from the state school systems and those of the cities. The *Biennials* also include a wealth of data on all levels of education and types of school, including private and commercial.

Much of the detailed data in the early *Biennials* came from surveys of school districts, and complementary data came from surveys of the states. Sometime in the early 1930s, the Office of Education revised some of the earlier data to take account of obvious underreporting from the school districts. The Office never mentioned the procedure that was used nor commented that the revisions were being made. It simply published series with different numbers. (See Goldin 1994, 1998 for a discussion of the procedure that the Office must have used in the construction of the secondary school data.)

The *Digest of Education Statistics*, published since 1962, picks up where the *Biennials* leave off. Recent tables can be accessed through the NCES website. The sources for the *Digest* are surveys and estimates of the Department of Education and other agencies.

Private school data were often collected by the Office or Department of Education but, beginning in the 1950s, data from the National Catholic Welfare Conference have been relied on for the bulk of private students, those in Catholic schools (see, e.g., <CG.A.17>). The pioneering work of Abbott L. Ferriss (1969) in rendering consistent many of the historical education series should also be mentioned.

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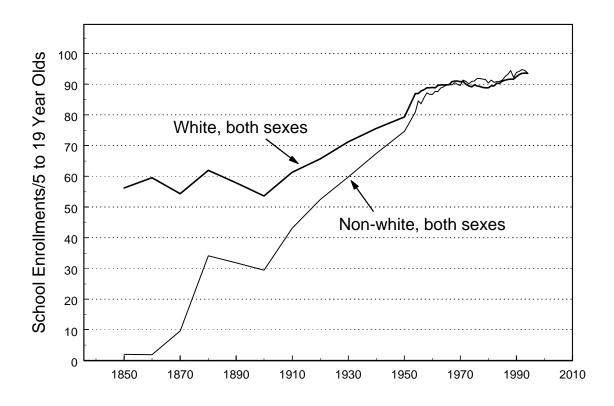


Figure 1: School Enrollments/(5 to 19 year olds) by Race for Both Sexes (expressed as a percentage), 1850 to 1994

Source: **<CG.A.15>**.

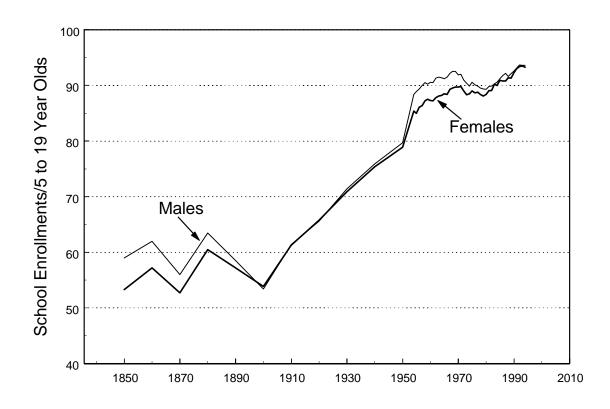


Figure 2: School Enrollments/(5 to 19 year olds) by Sex for Whites (expressed as a percentage), 1850 to 1994

Source: <**CG.A.15**>.

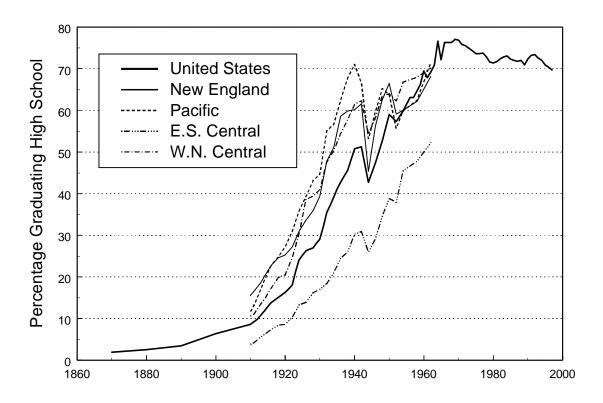


Figure 3: Public and Private High School Graduation Rates (percentage of 17 year olds) for the United States and Four Census Divisions

Sources: <**CG.A.11**> and <**CG.A.17**>.

Note: The data on high school graduates come from administrative sources and do not include those who might later earn the GED credential. See text.

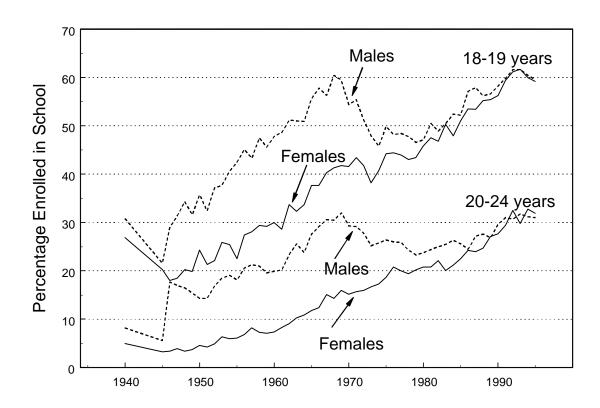


Figure 4: Enrollment by Sex for 18-19 year olds and 20-24 year olds

Source: <**CG.A.4**>.

Timeline of Important State and Federal Legislation, Judicial Decisions, and Historical Periods in U.S. Education

- 1635 *Boston Latin School*: first "grammar" or secondary school in the colonies opens; Boston Latin was funded, in part, by income from a public land sale, making it the first public school in America.
- 1638 *Harvard University*: the first university in America, founded in 1636, is opened to students.
- Old Deluder Satan Act of the General Court of the Colony of Massachusetts Bay: Towns of 50 families or more must established a public elementary school and towns of 100 families or more must establish a public "grammar" school "with a master capable of preparing young people for university level study."
- 1785 First state university: chartered in Georgia.
- 1785 Land Ordinance of 1785: "an Ordinance for ascertaining the mode of disposing of Lands in the Western Territory" (north of the Ohio River and east of the Mississippi) passed by the Continental Congress, reserved section 16 of each congressional township (36 square-mile sections) for the support of public schools within the township.
- Northwest Ordinance: "an Ordinance for the government of the Territory of the United States northwest of the River Ohio" passed by the Continental Congress, noted that because "religion, morality, and knowledge" are essential to good government, "schools and the means of education shall forever be encouraged."
- 1789 *U.S. Constitution*: Tenth Amendment provides legal basis for making education a state function. First Amendment and Fourteenth Amendment together assure separation of church and state in the provision of education at the local level.
- 1789 → *State constitutions*: provide for the establishment of statewide school systems and, for states entering the union after 1862, contain allotments of federal lands to support state institutions of higher education.
- 1819 Dartmouth College v. Woodward: charter of Dartmouth College was determined to be a contract and thus the state legislature of New Hampshire could not abrogate it and set up a state college instead.
- 1830 Laws prohibiting the teaching of slaves to read: first such law passed in Louisiana; Georgia and Virginia follow in 1831; Alabama in 1832, South Carolina in 1834, and North Carolina in 1835.
- 1833 *Oberlin College*: (was Oberlin Collegiate Institute) in Ohio is founded as the first coeducational college in the United States.
- 1837 *Massachusetts Board of Education*: Horace Mann appointed to head the first state board of education.
- 1850 Amendment to the Land Ordinance of 1785: increased educational allotment to two sections, 16 and 36, for states entering after 1850.
- 1852 *Compulsory school-attendance act*: Massachusetts passed the first such law in the United States.
- 1862 *Morrill Land Grant Act*: Congress granted funds (scrip in federal land) to states to found colleges of mechanical arts (engineering), military science, and agriculture.
- 1867 U.S. Office of Education: established

- *Kalamazoo Decision*: Michigan Supreme Court decision validated use of local funds for secondary school education similar to their use for elementary (common) school education.
- *Hatch Act*: provided government support of state agricultural experiment stations, as joint research projects of state agricultural colleges and the U.S. Department of Agriculture.
- 1890 Second Morrill Land Grant Act: Congress instituted regular appropriations for the land-grant colleges; the "historically black" institutions were set up in response to the demands of this act that nonwhite students be provided facilities.
- *Plessy v. Ferguson*: Supreme Court validated the separation of black and white pupils and established the "separate but equal" doctrine.
- *The Junior High School*: first ones established in Columbus, OH and Berkeley, CA.
- 1914 Smith-Lever Agriculture Extension Act: set up agricultural extension.
- *Smith-Hughes Vocational Act*: gave funds to support agriculture, industry, and home economics education and created the Federal Board for Vocational Education.
- *Compulsory school-attendance laws*: all states have such a law, although the maximum age of compulsion often exceeds the age at which a work-permit can be granted.
- 1942 General Education Development (GED) Program: initiated to provide World War II veterans lacking a high school diploma with an opportunity to earn a secondary school credential; civilians were first able to take the test in 1952.
- *West Virginia Board of Education v. Barnette*: Supreme Court ruled that students who are Jehovah's Witnesses were not obliged to participate in saluting the flag.
- *G.I. Bill of Rights*: 78<sup>th</sup> Congress provided subsistence allowances, tuition fees, and supplies for the education and training of veterans of World War II in a wide variety of settings including colleges, high schools, and vocational training institutions.
- *National Science Foundation*: established to "promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes."
- *Korean War G.I. Bill of Rights*: educational benefits of the 1944 Bill are extended to Korean War veterans and others who served in the armed forces during the war period.
- *Cooperative Research Program*: authorized the U.S. Commissioner of Education to contract with institutions of higher education and state education agencies for educational research.
- *Brown v. Board of Education*: held unconstitutional the deliberate segregation of schools by law on account of race
- 1958 National Defense Education Act: provided extensive aid to schools and students.
- *Engel v. Vitale*: Supreme Court ruled that the state could not enforce prayer in public schools.
- *Vocational Education Act*: further expanded agricultural extension.
- 1964 Civil Rights Act, Title IX of the Education Amendments of 1972 and Section 1983 of the 1964 Act: outlaws discrimination by sex and protects students from receiving different resources and other disparate treatment on account of sex.
- *Head Start*: established in the Office of Economic Opportunity as a way to serve children of low-income families; later administered by the Administration for Children and Families.

- 1973 Federal Pell Grant Program: authorized under the Higher Education Act of 1965, provides for undergraduate student aid based on need.
- 1975 *Education for All Handicapped Children Act* (EAHCA): requires better access to schools for disabled students.
- 1975 *Individuals with Disabilities Education Act* (IDEA): replaces EAHCA and addresses the failure of many states to comply with EAHCA.
- 1978 *University of California Regents v. Bakke*: Supreme Court rules against reverse discrimination, fixed quotas cannot be set.
- 1980 Department of Education: established as a separate cabinet-level agency.

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<CG.A.1> Public school districts and elementary and secondary schools: 1916 to 1996<sup>1</sup>

School year	School	Number of schools								
ending	districts <sup>2, 3</sup>	Elementary		Secondary		One-teacher public				
		Public <sup>1, 4, 5</sup>	Private	Public <sup>1, 4, 5</sup>	Private	schools <sup>6</sup>				
Units	Number	Number	Number	Number	Number	Number				
HS no.	H412	H413	H414	H415	H416	H417				
col. no.	(1)	(2)	(3)	(4)	(5)	(6)				
1916						200,100				
1918						196,000				
1920						190,700				
1922						180,800				
1924						169,700				
1926						162,800				
1928						156,100				
1930		247,581	238,306	27,188	23,930	149,282				
1932	127,531	242,484	232,750	29,698	26,409	143,391				
1934	(NA)	246,228	236,236	28,041	24,714	139,166				
1936	(NA)	242,166	232,174	28,979	25,652	131,101				
1938	119,001	231,652	221,660	28,794	25,467	121,178				
1940	117,108	(NA)	(NA)	(NA)	(NA)	113,600				
1942	115,493	193,397	183,112	28,134	25,123	107,692				
1944	111,383	180,190	169,905	31,984	28,973	96,302				
1946	101,382	170,090	160,227	27,608	24,314	86,563				
1948	94,926	156,831	146,760	28,776	25,484	75,096				
1950	83,718	138,600	128,225	27,873	24,542	59,652				
1952	71,094	134,429	123,763	27,068	23,746	50,742				
1954	63,057	122,614	110,875	29,550	25,637	42,865				
1956	54,859	116,799	104,427	29,933	26,046	34,964				
1958	47,594	108,511	95,446	29,501	25,507	25,341				
1960*	40,520	105,427	91,853	29,845	25,784	20,213				
1962	35,676	96,672	81,910	29,479	25,350	13,333				
1964	31,705	(NA)	77,584	30,882	26,431	9,895				
1966	26,983	88,556	73,216	31,203	26,597	6,491				
1968	22,010	85,779	70,879	31,311	27,011	4,146				
1970	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1971	17,995	80,172	65,800	29,122	25,352	1,815				
1972	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1973	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1974	16,730	(NA)	65,070	(NA)	25,906	1,365				
1975	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1976	16,376	(NA)	63,242	(NA)	25,330	1,166				
1977	16,271	79,029	62,644	31,282	25,378	1,111				
1978	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1979	16,014	78,079	61,982	30,270	24,504	1,056				
1980	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1981	15,912	77,861	61,069	30,040	24,362	921				
1982	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1983	15,824	(NA)	59,656	(NA)	23,988	798				
1984	15,747	79,954	59,082	31,809	23,947	838				
1985	(NA)	(NA)	58,827	(NA)	23,916	825				
1986	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)				
1987	15,713	(NA)	60,784	(NA)	23,389	763				
1988	15,577	82,704	59,754	32,259	23,841	729				
1989	15,376	(NA)	60,176	(NA)	23,638	583				
1990	15,367	(NA)	60,699	(NA)	23,461	630				
1991	15,358	83,563	61,340	32,449	23,460	617				
1992	15,173	85,262	61,739	32,530	23,248	569				
1992	15,173	(NA)	62,225	(NA)	23,248	430				
1994	14,881	86,269	62,726	33,934	23,379	442				
	· · · · · · · · · · · · · · · · · · ·			(NA)	23,668	442				
1995	14,772	(NA)	63,572		777 660					

Sources: <CG.A.1.1> through <CG.A.1.6>, 1916-1956, U.S. Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C.: U.S. G.P.O., 1975), series H 412 to H 417. The original sources are: 1916, U.S. Office of Education, *Annual Report of the United States Commissioner of Education*; 1918-1956, U.S. Office of Education, *Biennial Survey of Education in the United States*, Statistics of State School Systems, various issues. 1958-1996, U.S. Department of Education, *Digest of Education Statistics* 1997 (Washington, D.C.: U.S. G.P.O., 1997), table 89.

A school is defined as a division of the school system consisting of a group of pupils composed of one or more grades, organized as one unit with one or more teachers to give instruction of a defined type, and housed in a school plant of one or more buildings. More than one school may be housed in one school plant, as is the case when the elementary and secondary programs are housed in the same school plant. The actual operation of schools is generally the responsibility of local school systems. The local basic administrative unit or school district, <CG.A.1.1>, is an area organized as a quasi-corporation under the jurisdiction of an elected or appointed board of education responsible for the administration of all public schools in the area. School districts provide the machinery through which local control of schools is exercised, and are largely responsible for the location and size of schools, the types of educational programs and services offered, and the amount of financial support to be provided locally.

One-teacher public schools, <CG.A.1.6>, are those in which one teacher is employed to teach all grades authorized in the school, regardless of the number of rooms in the building.

A public school is defined as one operated by publicly elected or appointed school officials in which the program and activities are under the control of these officials and which is supported by public funds. School data, prior to 1960, are for public elementary and secondary day schools in the contiguous United States. Excluded are public schools in the outlying areas of the United States, public schools operated directly by the Federal Government on military reservations and schools for Native Americans, public residential schools for special needs children, and subcollegiate departments of institutions of higher education. Beginning in 1960, public schools in Alaska and Hawaii are included in the data.

Nonpublic schools, while subject to certain regulatory controls of the state, are under the operational control of private individuals or church-affiliated or nonsectarian institutions. Whether operated on a profit or nonprofit basis, nonpublic schools are generally supported by private funds as distinguished from public funds.

#### Footnotes:

- \1: Schools with both elementary and secondary programs are included both under elementary and secondary headings.
- \2: Includes operating and nonoperating districts.
- \3: Because of expanded survey coverage, data after the school year ending in 1984 are not directly comparable with figures for earlier years.
- \4: Data for private schools in most years are partly estimated.
- \5: Data for private schools after the school year ending in 1983 are from sample surveys and should not be compared directly to the data for earlier years.
- \6: The wording in the reports changes over time from "one-room schoolhouse" to "one-teacher schoolhouse," but they appear to be measuring the same construct.
- \7: Data prior to 1930 are estimated on the basis of the number of schools that responded to state surveys, whereas subsequent data are the number of schools on file with the state, not all of which responded to the surveys.
- \* Alaska and Hawaii are included in and after this year.

<CG.A.2> Public and private enrollments, grades K-8 and 9-12: 1869-70 to fall  $1996^1$ 

	All Public a			ſ	Public School	S		Private Schools					
School year	Total enrollment, kinder- garten to grade 12	Ratio of kinder- garten to grade 12 enrollment to 5- to 17- year olds	Total enrollment, kinder- garten to grade 12	Kinder- garten to grade 8	(Pupils/ teachers), kinder- garten to grade 8 <sup>2</sup>	Grades 9 to 12	(Pupils/ teachers), grades 9 to 12 <sup>2</sup>	Total enrollment, kinder- garten to grade 12 <sup>3</sup>	Kinder- garten to grade 8 <sup>3</sup>	(Pupils/ teachers), kinder- garten to grade 8 <sup>2, 3</sup>	Grades 9 to 12 <sup>3</sup>	(Pupils/ teachers), grades 9 to 12 <sup>2, 3</sup>	
Units	thousands	percentage	thousands	thousands	percentage	thousands	percentage	thousands	thousands	percentage	thousands	percentage	
HS no.	H418	H419	H420	New	H423	H424	H425	H426	H427	H428	H429	H430	
col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1869-70		57.0 <sup>4</sup>	6,872										
1870-71		(NA)	7,562	7,481		80							
1871-72		(NA)	7,815	(NA)		(NA)							
1872-73		(NA)	8,004	(NA)		(NA)							
1873-74		(NA)	8,444	(NA)		(NA)							
1874-75		(NA)	8,786	(NA)		(NA)							
1875-76		(NA)	8,869	(NA)		(NA)							
1876-77		(NA)	8,965	(NA)		(NA)							
1877-78		(NA)	9,439	(NA)		(NA)							
1878-79		(NA)	9,504	(NA)		(NA)							
1879-80		65.5 <sup>4</sup>	9,868	9,757		110							
1880-81		(NA)	10,001	(NA)		(NA)							
1881-82		(NA)	10,212	(NA)		(NA)							
1882-83		(NA)	10,652	(NA)		(NA)							
1883-84		(NA)	10,982	(NA)		(NA)							
1884-85		(NA)	11,398	(NA)		(NA)							
1885-86		(NA)	11,664	(NA)		(NA)							
1886-87		(NA)	11,885	(NA)		(NA)							
1887-88		(NA)	12,183	(NA)		(NA)							
1888-89	13,661	(NA)	12,392	(NA)		(NA)		1,269					
1889-90	14,334	77.3	12,723	12520 <sup>5</sup>		203		1,611	1,516⁵		95	13.2	
1890-91	14,541	(NA)	13,050	12,839		212		1,491	1,392		98	(NA)	

#### <CG.A.2> continued

<cg.a.2> cor</cg.a.2>		and private			Public School		Private Schools						
		ools		'	ublic ochool	3		1 Trate Concolo					
School year	Total enrollment, kinder- garten to grade 12	Ratio of kinder- garten to grade 12 enrollment to 5- to 17- year olds	Total enrollment, kinder- garten to grade 12	Kinder- garten to grade 8	(Pupils/ teachers), kinder- garten to grade 8 <sup>2</sup>	Grades 9 to 12	(Pupils/ teachers), grades 9 to 12 <sup>2</sup>	Total enrollment, kinder- garten to grade 12 <sup>3</sup>	Kinder- garten to grade 8 <sup>3</sup>	(Pupils/ teachers), kinder- garten to grade 8 <sup>2,3</sup>	Grades 9 to 12 <sup>3</sup>	(Pupils/ teachers), grades 9 to 12 <sup>2, 3</sup>	
Units	thousands	percentage	thousands	thousands	percentage	thousands	percentage	thousands	thousands	percentage	thousands	percentage	
HS no.	H418	H419	H420	New	H423	H424	H425	H426	H427	H428	H429	H430	
col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1891-92	14,556	(NA)	13,256	13,016		240		1,300	1,199		101	(NA)	
1892-93	14,826	(NA)	13,483	13,229		254		1,343	1,240		102	(NA)	
1893-94	15,314	(NA)	13,995	13,706		289		1,319	1,200		119	(NA)	
1894-95	15,455	(NA)	14,244	13,894		350		1,211	1,093		118	(NA)	
1895-96	15,834	(NA)	14,499	14,118		380		1,335	1,228		107	(NA)	
1896-97	16,140	(NA)	14,823	14,414		409		1,317	1,209		108	(NA)	
1897-98	16,459	(NA)	15,104	14,654		450		1,355	1,250		105	(NA)	
1898-99	16,474	(NA)	15,176	14,700		476		1,298	1,194		104	(NA)	
1899-1900	16,855	78.1	15,503	14,984		519		1,352	1,241		111	10.9	
1900-01	17,072	79.3	15,703	15,161		542		1,370	1,262		108	(NA)	
1901-02	17,126	78.6	15,917	15,367		551		1,209	1,104		105	(NA)	
1902-03	17,205	77.9	16,009	15,417		592		1,196	1,094		102	(NA)	
1903-04	17,560	78.7	16,256	15,620		636		1,304	1,201		103	(NA)	
1904-05	17,806	78.8	16,468	15,789		680		1,338	1,231		107	(NA)	
1905-06	18,056	79.0	16,642	15,919		723		1,414	1,312		102	(NA)	
1906-07	18,292	79.1	16,891	16,140		751		1,402	1,305		97	(NA)	
1907-08	18,537	79.2	17,062	16,292		770		1,475	1,383		92	(NA)	
1908-09	18,917	79.9	17,506	16,665		841		1,411	1,317		94	(NA)	
1909-10	19,372	80.7	17,814	16,899	34.4	915		1,558	1,441		117	10.5	
1910-11	19,636	80.5	18,035	17,050	(NA)	985		1,601	1,471		131	(NA)	
1911-12	19,830	80.3	18,183	17,078	(NA)	1,105		1,647	1,506		141	(NA)	
1912-13	20,348	81.3	18,609	17,474	(NA)	1,135		1,739	1,591		148	(NA)	
1913-14	20,935	82.1	19,154	17,935	(NA)	1,219		1,781	1,626		155	(NA)	

#### <CG.A.2> continued

<cg.a.2> continued</cg.a.2>													
		and private		ŀ	Public School	S		Private Schools					
	sch		Total	I/in al n u	/Dunile/	Cradas	/Dunile/	Total	IC:nadan	/Dunile/	Crades	/Dunile/	
	Total	Ratio of	Total	Kinder-	(Pupils/	Grades 9 to 12	(Pupils/	Total	Kinder-	(Pupils/	Grades 9 to 12 <sup>3</sup>	(Pupils/	
School year	enrollment, kinder-	kinder- garten to	enrollment, kinder-	garten to grade 8	teachers), kinder-	10 12	teachers),	enrollment, kinder-	garten to grade 8 <sup>3</sup>	teachers), kinder-	10 12	teachers),	
Scriool year	garten to	grade 12	garten to	grade o	garten to		grades 9 to 12 <sup>2</sup>	garten to	grade o	garten to		grades 9 to 12 <sup>2, 3</sup>	
	grade 12	enrollment	grade 12		garten to grade 8 <sup>2</sup>		12	grade 12 <sup>3</sup>		grade 8 <sup>2, 3</sup>		12	
	grade 12	to 5- to 17-	grade 12		grade o			grade 12		grade o			
		year olds											
Units	thousands	percentage	thousands	thousands	percentage	thousands	percentage	thousands	thousands	percentage	thousands	percentage	
HS no.	H418	H419	H420	New	H423	H424	H425	H426	H427	H428	H429	H430	
col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1914-15	21,474	82.7	19,704	18,375	(NA)	1,329		1,770	1,615		155	(NA)	
1915-16	22,172	84.2	20,352	18,896	(NA)	1,456		1,820	1,665		157	(NA)	
1917-18	22,516	83.1	20,854	18,920	32.6	1,934	23.0	1,662	1,504		159	(NA)	
1919-20	23,278	84.4	21,578	19,378	33.6	2,200	21.6	1,699	1,486		214	12.3	
1921-22	24,820	87.1	23,239	20,366	34.3	2,873	22.2	1,581	1,355		226	(NA)	
1923-24	26,016	86.6	24,289	20,899	33.9	3,390	23.5	1,727	1,473		254	(NA)	
1925-26	27,180	90.0	24,741	20,984	32.6	3,757	22.2	2,439	2,143		296	(NA)	
1927-28	27,810	89.9	25,180	21,268	33.1	3,911	20.7	2,631	2,289		341	(NA)	
1929-30	28,329	90.2	25,678	21,279	33.2	4,399	20.6	2,651	2,310		341	14.0	
1931-32	29,061	91.8	26,275	21,135 <sup>5</sup>	33.0	5,140	22.2	2,786	2,383 <sup>5</sup>		403	(NA)	
1933-34	29,163	92.4	26,434	20,765 <sup>5</sup>	33.5	5,669	24.9	2,729	2,368 <sup>5</sup>		360	(NA)	
1935-36	29,006	92.4	26,367	20,393 <sup>5</sup>	33.8	5,975	22.3	2,639	2,251 <sup>5</sup>	34.0	387	15.3	
1937-38	28,663	92.6	25,975	19,748	33.2	6,227	22.0	2,687	2,241	33.4	447	16.0	
1939-40	28,045	93.0	25,434	18,832	32.7	6,601	22.0	2,611	2,153	33.2	458	15.2	
1941-42	27,179	92.3	24,562	18,175	32.5	6,388	21.3	2,617	2,133	32.6	483	15.3	
1943-44	25,758	89.3	23,267	17,713	32.9	5,554	19.2	2,491	2,070	(NA)	421	(NA)	
1945-46	26,124	91.6	23,300	17,678	32.6	5,622	19.4	2,825	2,259	35.0	565	15.5	
1947-48	26,998	93.2	23,945	18,291	33.0	5,653	18.5	3,054	2,451	36.4	602	14.4	
1949-50	28,492	94.3	25,111	19,387	32.9	5,725	17.7	3,380	2,708	35.6	672	15.9	
1951-52	30,372	97.0	26,563	20,681	33.4	5,882	17.1	3,809	3,154	38.3	656	15.7	
1953-54	33,175	96.7	28,836	22,546	34.3	6,290	16.8	4,339	3,592	42.3	747	15.2	
1955-56	35,872	97.1	31,163	24,290	30.2 <sup>2</sup>	6,873	20.9 <sup>2</sup>	4,709	3,886	40.4 <sup>2</sup>	823	15.7 <sup>2</sup>	
1956-57	37,303	97.4	32,334	25,016	29.6	7,318	21.2	4,968	4,092	38.8	877	17.3	

#### <CG.A.2> continued

<cg.a.2> continued</cg.a.2>												
		and private		I	Public School		Private Schools					
	sch		T-4-1	IZ:I	/D :I /	0	/D: ::= !!= /	T-4-1	IZ:l	/D :!- /	0	/D !! - /
	Total	Ratio of	Total	Kinder-	(Pupils/	Grades 9	(Pupils/	Total	Kinder-	(Pupils/	Grades 9	(Pupils/
Cabaalyaan	enrollment,	kinder-	enrollment,	garten to	teachers),	to 12	teachers),	enrollment,	garten to	teachers),	to 12 <sup>3</sup>	teachers),
School year	kinder-	garten to	kinder-	grade 8	kinder-		grades 9 to 12 <sup>2</sup>	kinder-	grade 8 <sup>3</sup>	kinder-		grades 9 to 12 <sup>2, 3</sup>
	garten to	grade 12	garten to		garten to grade 8 <sup>2</sup>		12	garten to grade 12 <sup>3</sup>		garten to grade 8 <sup>2, 3</sup>		12
	grade 12	enrollment to 5- to 17-	grade 12		grade o			grade 12		grade o		
		year olds										
Units	thousands	percentage	thousands	thousands	percentage	thousands	percentage	thousands	thousands	percentage	thousands	percentage
HS no.	H418	H419	H420	New	H423	H424	H425	H426	H427	H428	H429	H430
col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1957-58	38,756	97.7	33,529	25,669	29.1	7,860	21.3	5,227	4,297	38.4	931	17.0
1958-59	40,290	97.9	34,839	26,581	28.7	8,258	21.7	5,451	4,459	38.8	993	18.9
Fall 1959	40,857	98.0	35,182	26,911	28.7	8,271	21.5	5,675	4,640	38.7	1,035	18.5
Fall 1960*	43,070	97.5	37,260	28,439	28.4	8,821	21.7	5,810	4,752	36.1	1,058	18.6
Fall 1961	44,146	97.5	38,253	28,686	28.3	9,566	21.7	5,893	4,765	39.0	1,128	19.0
Fall 1962	45,798	98.2	39,746	29,374	28.5	10,372	21.7	6,052	4,850	36.3	1,202	18.5
Fall 1963	47,199	98.2	41,025	29,915	28.4	11,110	21.5	6,174	4,910	35.2	1,265	18.6
Fall 1964	47,716	98.1	41,416	30,025	27.9	11,391	21.5	6,300	5,000	34.2	1,300	18.3
Fall 1965	48,473	96.9	42,173	30,563	27.6	11,610	20.8	6,300	4,900	33.3	1,400	18.4
Fall 1966	49,239	97.2	43,039	31,145	26.9	11,894	20.3	6,200	4,800	32.7	1,400	18.4
Fall 1967	49,891	97.1	43,891	31,641	26.3	12,250	20.3	6,000	4,600	31.1	1,400	18.4
Fall 1968	50,744	97.6	44,944	32,226	25.4	12,718	20.4	5,800	4,400	29.9	1,400	17.9
Fall 1969	51,050	97.5	45,550	32,513	24.7	13,037	20.0	5,500	4,200	27.8	1,300	16.7
Fall 1970	51,257	97.5	45,894	32,558	24.3	13,336	19.8	5,363	4,052	26.5	1,311	16.4
Fall 1971	51,271	97.5	46,071	32,318	24.9	13,753	19.3	5,200	3,900	25.7	1,300	16.7
Fall 1972	50,726	97.0	45,726	31,879	23.9	13,848	19.1	5,000	3,700	24.0	1,300	16.9
Fall 1973	50,445	97.2	45,445	31,401	23.0	14,044	19.3	5,000	3,700	23.6	1,300	16.5
Fall 1974	50,073	97.2	45,073	30,971	22.6	14,103	18.7	5,000	3,700	22.6	1,300	16.0
Fall 1975	49,819	97.6	44,819	30,515	21.7	14,304	18.8	5,000	3,700	21.5	1,300	15.7
Fall 1976	49,478	97.7	44,311	29,997	21.8	14,314	18.5	5,167	3,825	20.9	1,342	15.8
Fall 1977	48,717	97.6	43,577	29,375	21.1	14,203	18.2	5,140	3,797	20.0	1,343	15.1
Fall 1978	47,637	97.1	42,551	28,463	21.0	14,088	17.3	5,086	3,732	20.2	1,353	15.6
Fall 1979	46,651	97.1	41,651	28,034	20.6	13,616	17.2	5,000	3,700	19.7	1,300	14.8

<CG.A.2> continued

<cg.a.2> con</cg.a.2>												
		and private		F	Public School	S			Р	rivate Schoo	ls	
		ools		121	(5 " (		(5 !! /		101			
	Total	Ratio of	Total	Kinder-	(Pupils/	Grades 9	(Pupils/	Total	Kinder-	(Pupils/	Grades 9	(Pupils/
	enrollment,	kinder-	enrollment,	garten to	teachers),	to 12	teachers),	enrollment,	garten to	teachers),	to 12 <sup>3</sup>	teachers),
School year	kinder-	garten to	kinder-	grade 8	kinder-		grades 9 to	kinder-	grade 8 <sup>3</sup>	kinder-		grades 9 to
	garten to	grade 12	garten to		garten to		12 <sup>2</sup>	garten to		garten to		12 <sup>2, 3</sup>
	grade 12	enrollment	grade 12		grade 8 <sup>2</sup>			grade 12 <sup>3</sup>		grade 8 <sup>2, 3</sup>		
		to 5- to 17-										
		year olds										
Units		percentage	thousands	thousands	percentage		,	thousands		percentage		
HS no.	H418	H419	H420	New	H423	H424	H425	H426	H427	H428	H429	H430
col. No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Fall 1980	46,208	97.8	40,877	27,647	20.4	13,231	16.8	5,331	3,992	18.8	1,339	15.0
Fall 1981	45,544	98.3	40,044	27,280	20.3	12,764	16.9	5,500	4,100	18.6	1,400	15.2
Fall 1982	45,166	98.9	39,566	27,161	20.2	12,405	16.6	5,600	4,200	18.2	1,400	14.9
Fall 1983	44,967	99.6	39,252	26,981	19.9	12,271	16.4	5,715	4,315	18.0	1,400	14.4
Fall 1984	44,908	99.9	39,208	26,905	19.7	12,304	16.1	5,700	4,300	17.7	1,400	14.4
Fall 1985	44,979	100.0	39,422	27,034	19.5	12,388	15.8	5,557	4,195	17.1	1,362	14.0
Fall 1986	45,205	100.1	39,753	27,420	19.3	12,333	15.7	5,452	4,116	16.5	1,336	13.6
Fall 1987	45,488	100.4	40,008	27,933	19.3	12,076	15.2	5,479	4,232	16.4	1,247	13.1
Fall 1988	45,430	100.1	40,189	28,501	19.0	11,687	14.9	5,241	4,036	16.1	1,206	12.8
Fall 1989	45,898	101.3	40,543	29,152	19.0	11,390	14.6	5,355	4,162	15.1	1,193	11.7
Fall 1990	46,448	102.5	41,217	29,878	19.0	11,338	14.6	5,232	4,095	16.1	1,137	11.3
Fall 1991	47,246	102.9	42,047	30,506	18.9	11,541	14.9	5,199	4,074	16.0	1,125	11.1
Fall 1992	48,198	103.3	42,823	31,088	18.9	11,735	15.1	5,375	4,212	16.2	1,163	11.3
Fall 1993	48,936	103.2	43,465	31,504	18.8	11,961	15.2	5,471	4,280	16.3	1,191	11.5
Fall 1994	49,707	102.9	44,111	31,898	19.0	12,213	14.9	5,596	4,360	16.8	1,236	11.2
Fall 1995 (P)	50,528	102.5	44,840	32,341	19.1	12,500	14.9	5,688	4,427	16.7	1,260	11.3
Fall 1996 <sup>6</sup>	(F)	(F)	45,229	(F)	(F)	12,874	(F)	(F)	(F)	(F)	1,293	(F)

Sources: <CG.A.2.1> through <CG.A.2.12>, 1869-70 to 1957-58, U.S. Department of Education, *120 Years of American Education: A Statistical Portrait* (Washington, D.C.: U.S. G.P.O., 1993), table 9. The original sources are: 1869-70 to 1915-16, U.S. Office of Education, *Annual Report of the United States Commissioner of Education*, various issues; 1917-18 to 1957-58, U.S. Office of Education, *Biennial Survey of Education in the United States*, Statistics of State School Systems, various issues; fall 1959 to fall 1996, U.S. Department of Education, *Digest of Education Statistics 1997* (Washington, D.C.: U.S. G.P.O., 1997), table 3. When the data in *120 Years* differ from those in *Digest 1997*, the latter is relied on. <CG.A.2.2>, for number of 5-17 year-olds, U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-25, nos. 519, 917, 1000, 1022, 1045, 1057, 1092, and *U.S. Population Estimates, by Age, Sex, Race, and Hispanic Origin: 1990-1995*, PPL-41. <CG.A.2.4>, 1910-11 to 1915-16, revisions provided by Thomas D. Snyder, of the National Center for Education Statistics. <CG.A.2.5>, <CG.A.2.7>, <CG.A.2.10>, and <CG.A.2.12>, for number of teachers, Abbott L. Ferriss, *Indicators of Trends in American Education* (N.Y.: Russell Sage Foundation, 1969), series B-5, B-6, B-9, and B-10. See also <CG.A.7.3> and <CG.A.7.4>, but see note \2 to this table.

Enrollment and other figures prior to 1959-60 for public day schools, grades K-12, include just the contiguous United States. Generally excluded from the entire series are public schools in the outlying areas of the United States, public schools operated directly by the federal government on military bases or exclusively for Native Americans, public residential schools for exceptional children, and subcollegiate departments of institutions of higher education. The excluded category represents a small percentage of all schools. There has been no comprehensive data collection effort for these schools in recent years. Only regular day school pupils are included; pupils enrolled in night schools and summer schools are excluded.

Private school figures are not strictly comparable over time. For example, in some of the earlier years, the figures may include enrollment of secondary pupils in subcollegiate departments of institutions of higher education and normal schools. Enrollment figures prior to 1976 do not include private schools for exceptional children or private vocational or trade schools. They cover only regular day school pupils. Summer school pupils are excluded in all years.

The enrollment information in the *Biennial Survey of Education* was collected at the state level and represents a cumulative count of the total number of different pupils registered at any time during the school year in each state. Pupils enrolled in two or more states during the school year may be counted more than once. Beginning with the fall of 1965, enrollment data come from fall enrollment counts (pupils enrolled in a given school unit on a particular fall date).

Many earlier enrollment series classify enrollments by instructional level (elementary or secondary). National Center of Education Statistics (NCES) now collects enrollment data by grade, not instructional level. Students enrolled in grades K-8 do not necessarily correspond one-to-one with students enrolled in elementary schools, nor do students enrolled in grades 9-12 correspond one-to-one with students enrolled in secondary schools. Junior high schools with grades 7-9 may be classified as secondary schools, though some of their pupils would be considered as enrolled in elementary grades.

The figures for total enrollment per 100 persons, 5-17 years old, series <CG.A.2.2>, divide the total enrollment numbers, series <CG.A.2.1>, by the number of persons 5-17 years old as of July 1 of the academic year. For example, for fall 1992, the ratio is the result of dividing enrollment for the academic year 1992-93 by the number of persons 5-17 years old on July 1, 1992. This rate has been increasing steadily, and in the 1980s exceeded 100 percent, where it has remained. Several factors cause this result. The population data come from the census, whereas the enrollment data come from reports from state

school systems. Some immigrants are not included in the census but are included in school enrollment data. The school enrollment data can double-count some students; the census should not. Also, some enrolled students are outside of the 5-17 age range the July before the school year.

In series <CG.A.2.5>, <CG.A.2.7>, <CG.A.2.10>, and <CG.A.2.12>, the "pupil-teacher ratio" is defined as the number of pupils enrolled divided by the number of classroom teachers. Past series have varied in their methods of counting both pupils and teachers. At times, the pupil counts have been based on average daily attendance or average daily membership, or cumulative enrollment rather than on fall enrollment. Prior to the 1940s, the available figures on "teachers" generally included librarians and guidance and psychological personnel as well as classroom teachers. When considering pupil-teacher ratios by instructional level, there are further complications. Under current NCES data collection practices, teacher data are grouped by instructional level (e.g., elementary, secondary), but the enrollment data, as discussed above, are given by grade level. The mapping from one to the other is not exact in large measure because certain teachers who instruct seventh and eighth grade students often are counted as "secondary school" teachers. After NCES discontinued the collection of teacher and enrollment data by elementary and secondary instructional levels in the mid-1960s, the distribution was estimated based on data collected by the National Education Association (NEA). Proportions of teachers and enrollments by instructional level from the NEA publication "Estimates of School Statistics" were used to distribute counts of teachers and enrollments for the purpose of calculating pupil-teacher ratios by instructional level. The series given here are based on data adjusted for consistency with current definitions, and are not replicable for all years by simply dividing enrollment by teachers. It should also be realized that national averages tend to obscure significant differences in pupil-teacher ratios, such as those between urban and rural areas and between large and small schools.

- \1: Prior to 1965, enrollment data include students who enrolled at any time during the school year. Enrollment ratios based on cumulative enrollment figures tend to be approximately 1 to 2 percentage points higher than counts based on fall enrollment. In later years, data for grades kindergarten through 8 include a relatively small number of pre-kindergarten students. Data for grades 9 to 12 contain a small number of postgraduate students. Population data for 1870 through 1961 include U.S. population overseas; data for later years are for U.S. resident population only. Population data for 1870 to 1890 are from the decennial census. Data for later years are based on counts of population for July 1 preceding the school year. Because of rounding, details may not round to totals.
- \2: As reported here, the data show a considerable jump between 1954 and 1956. This reflects a change in the calculation of the ratio. Before 1956, some junior high school teachers were classified as secondary school teachers, while their pupils in seventh and eighth grades were classified as elementary school pupils, making K-8 (or elementary) pupil-teacher ratios look higher than they were and 9-12 (or secondary) pupil-teacher ratios look lower than they were. The most recent revisions of these data adjust for this bias back to 1956, but not earlier.
- \3: For 1958-59 and 1960-61 through 1963-64, numbers were estimated by linear interpolation. Data for most years are at least partially estimated. Beginning in fall 1980, data include estimates for an expanded universe of private schools. Therefore, these totals may differ from figures shown in other tables, and direct comparisons with earlier years should not be made.
- \4: Underlying data are for public elementary and secondary schools only.
- \5: Data for 1890 and 1931-32 to 1935-36 exclude kindergarten enrollment; all other years include it to the extent that it was reported. Public kindergarten enrollments become significant in later years. \6: Public elementary and secondary data are based on "Early Estimates" surveys. Other data are projected.

<CG.A.3> Enrollment in public elementary and secondary schools, by grade: 1910-11 to 1995-96<sup>1</sup>

			-	-		Public Schools	, kindergarten t	hrough grade 8				
School year	Total	Total	Kinder- garten <sup>2</sup>	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Ungraded <sup>3</sup>
Units	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands	thousands
HS no.	new	new	new	new	new	new	new	new	new	new	new	new
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(19)	(11)	(12)
1910-11	18,035	16,878	327	3,890	2,450	2,301	2,201	1,870	1,523	1,258	1,059	
1911-12	18,183	16,982	348	3,876	2,445	2,295	2,212	1,880	1,547	1,281	1,098	
1912-13	18,609	17,276	370	3,922	2,468	2,316	2,248	1,910	1,589	1,319	1,133	
1913-14	19,154	17,722	391	3,986	2,496	2,374	2,288	1,976	1,664	1,369	1,178	
1914-15	19,704	18,143	409	4,043	2,536	2,412	2,341	2,022	1,720	1,419	1,241	
1915-16	20,352	18,641	434	4,115	2,585	2,476	2,403	2,076	1,784	1,475	1,293	
1916-17 <sup>5</sup>	20,603	18,808	434	4,225	2,600	2,504	2,426	2,105	1,814	1,481	1,219	
1917-18	20,854	18,920	433	4,323	2,608	2,524	2,441	2,128	1,839	1,483	1,141	
1918-19 <sup>5</sup>	21,216	19,149	457	4,322	2,623	2,511	2,499	2,141	1,865	1,537	1,195	
1919-20	21,578	19,378	481	4,321	2,638	2,498	2,556	2,153	1,890	1,592	1,248	
1920-21 <sup>5</sup>	22,409	19,872	505	4,249	2,743	2,607	2,558	2,221	1,974	1,668	1,346	
1921-22	23,239	20,366	529	4,177	2,849	2,716	2,560	2,290	2,058	1,744	1,444	
1922-23 <sup>5</sup>	23,764	20,633	569	4,180	2,831	2,756	2,634	2,365	2,089	1,795	1,412	
1923-24	24,289	20,899	610	4,184	2,813	2,796	2,708	2,441	2,121	1,846	1,380	
1924-25 <sup>5</sup>	24,650	20,999	600	4,049	2,800	2,730	2,696	2,514	2,186	1,931	1,493	
1925-26	24,741	20,984	673	3,977	2,820	2,729	2,662	2,473	2,234	1,927	1,488	
1926-27 <sup>5</sup>	24,961	21,126	684	4,074	2,818	2,696	2,647	2,454	2,239	1,974	1,539	
1927-28	25,180	21,268	695	4,171	2,817	2,662	2,632	2,435	2,243	2,022	1,590	
1928-29 <sup>5</sup>	25,429	21,274	709	4,161	2,810	2,697	2,616	2,409	2,250	2,026	1,596	
1929-30	25,678	21,279	723	4,151	2,803	2,732	2,599	2,382	2,256	2,030	1,601	
1930-31 <sup>5</sup>	25,977	21,207	712	4,041	2,790	2,698	2,594	2,423	2,267	2,041	1,641	
1931-32	26,275	21,135	701	3,930	2,776	2,664	2,589	2,463	2,278	2,053	1,682	
1932-33 <sup>5</sup>	26,355	20,950	649	3,826	2,704	2,638	2,581	2,448	2,283	2,120	1,701	
1933-34	26,434	20,765	602	3,717	2,632	2,612	2,573	2,433	2,288	2,187	1,721	
1934-35 <sup>5</sup>	26,401	20,579	604	3,624	2,595	2,568	2,536	2,433	2,304	2,185	1,730	
1935-36	26,367	20,393	607	3,530	2,558	2,525	2,499	2,433	2,319	2,182	1,740	
1936-37 <sup>5</sup>	26,171	20,070	607	3,424	2,522	2,485	2,451	2,388	2,286	2,178	1,731	

# <CG.A.3> continued

<u> </u>						Public Schools	s, kindergarten t	hrough grade 8				
School year	Total	Total	Kinder- garten <sup>2</sup>	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Ungraded <sup>3</sup>
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(19)	(11)	(12)
1937-38	25,975	19,748	607	3,317	2,487	2,444	2,403	2,342	2,253	2,173	1,722	
1938-39 <sup>5</sup>	25,704	19,290	601	3,168	2,410	2,388	2,362	2,295	2,214	2,140	1,712	
1939-40	25,434	18,832	595	3,018	2,333	2,332	2,322	2,248	2,176	2,108	1,701	
1940-41 <sup>5</sup>	25,296	18,582	613	2,992	2,286	2,263	2,271	2,211	2,156	2,050	1,691	
1941-42	24,562	18,175	626	2,931	2,215	2,175	2,197	2,166	2,124	2,061	1,680	
1942-43 <sup>5</sup>	24,155	18,033	665	2,919	2,229	2,180	2,149	2,102	2,071	2,023	1,695	
1943-44	23,267	17,713	697	2,879	2,221	2,163	2,080	2,017	1,998	1,965	1,694	
1944-45 <sup>5</sup>	23,226	17,666	734	2,882	2,266	2,173	2,084	2,008	1,951	1,898	1,671	
1945-46	23,300	17,678	773	2,895	2,319	2,191	2,094	2,006	1,910	1,837	1,654	
1946-47 <sup>5</sup>	23,659	17,821	873	2,896	2,320	2,205	2,119	2,012	1,907	1,850	1,639	
1947-48	23,945	18,291	989	2,951	2,363	2,259	2,183	2,055	1,940	1,898	1,653	
1948-49 <sup>5</sup>	24,477	18,818	1,016	3,067	2,503	2,315	2,221	2,089	1,995	1,919	1,694	
1949-50	25,111	19,387	1,034	3,170	2,645	2,396	2,254	2,151	2,056	1,947	1,734	
1950-51 <sup>5</sup>	25,706	19,900	941	3,053	2,739	2,600	2,358	2,211	2,117	1,995	1,885	
1951-52	26,563	20,681	1,272	2,957	2,670	2,718	2,559	2,320	2,166	2,083	1,936	
1952-53 <sup>5</sup>	27,507	21,625	1,399	3,358	2,639	2,633	2,684	2,520	2,276	2,143	1,973	
1953-54	28,836	22,546	1,474	3,666	2,940	2,569	2,565	2,607	2,449	2,242	2,032	
1954-55 <sup>5</sup>	30,045	23,471	1,415	3,518	3,391	2,896	2,535	2,523	2,584	2,432	2,177	
1955-56	31,163	24,290	1,564	3,495	3,242	3,291	2,848	2,481	2,470	2,542	2,357	
1956-57	32,334	25,016	1,675	3,491	3,241	3,183	3,238	2,808	2,443	2,476	2,460	
1957-58	33,529	25,669	1,772	3,587	3,214	3,176	3,128	3,181	2,759	2,458	2,395	
1958-59	34,839	26,581	1,834	3,679	3,346	3,179	3,142	3,099	3,136	2,785	2,381	
1959-60	36,087	27,602	1,923	3,733	3,436	3,302	3,146	3,118	3,070	3,173	2,701	
1960-61 <sup>5</sup>	37,260	28,439	2,000	3,822	3,502	3,405	3,278	3,131	3,095	3,123	3,083	
1961-62	38,253	28,686	2,065	3,857	3,568	3,428	3,343	3,218	3,065	3,122	3,021	
1962-63 <sup>5</sup>	39,746	29,374	2,162	3,928	3,630	3,518	3,391	3,332	3,190	3,140	3,083	
1963-64 <sup>5</sup>	41,025	29,915	2,177	4,023	3,705	3,560	3,467	3,366	3,299	3,241	3,077	
1964-65 <sup>5</sup>	42,280	30,652	2,250	4,014	3,800	3,662	3,523	3,465	3,362	3,363	3,212	
1965-66	42,068	30,466	2,260	3,915	3,644	3,595	3,476	3,377	3,312	3,297	3,186	404

<CG.A.3> continued

	Total					Public Schools	, kindergarten t	hrough grade 8				
School year	Total	Total	Kindergart <sup>2</sup>	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Ungraded <sup>3</sup>
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(19)	(11)	(12)
1966-67	43,042	31,162	2,370	3,954	3,696	3,615	3,580	3,463	3,369	3,409	3,272	433
1967-68	43,890	31,643	2,420	3,980	3,723	3,659	3,580	3,562	3,450	3,454	3,357	459
1968-69	44,903	32,181	2,511	3,926	3,758	3,692	3,629	3,573	3,555	3,552	3,423	561
1969-70	45,550	32,513	2,545	3,869	3,716	3,720	3,660	3,621	3,568	3,667	3,520	628
1970-71	45,894	32,558	2,564	3,817	3,654	3,663	3,675	3,635	3,598	3,662	3,601	690
1971-72	46,071	32,318	2,483	3,570	3,587	3,612	3,623	3,662	3,622	3,710	3,635	814
1972-73	45,726	31,879	2,503	3,352	3,381	3,533	3,554	3,597	3,639	3,713	3,649	959
1973-74	45,445	31,401	2,655	3,239	3,192	3,336	3,505	3,538	3,592	3,741	3,676	927
1974-75	45,073	30,971	2,801	3,198	3,106	3,169	3,345	3,510	3,559	3,712	3,708	863
1975-76	44,819	30,515	2,972	3,238	3,027	3,038	3,112	3,281	3,476	3,619	3,636	1,116
1976-77	44,311	29,997	2,918	3,332	3,086	2,986	3,025	3,116	3,298	3,572	3,578	1,084
1977-78	43,577	29,375	2,742	3,295	3,200	3,059	2,979	3,019	3,111	3,385	3,534	1,051
1978-79	42,551	28,463	2,652	3,062	3,148	3,158	3,046	2,980	3,036	3,228	3,355	798
1979-80	41,651	28,034	2,675	2,937	2,909	3,120	3,148	3,055	2,999	3,128	3,171	894
1980-81	40,877	27,647	2,689	2,894	2,800	2,893	3,107	3,130	3,038	3,085	3,086	924
1981-82	40,044	27,280	2,688	2,951	2,782	2,806	2,918	3,127	3,180	3,183	3,059	587
1982-83	39,566	27,161	2,846	2,937	2,790	2,763	2,798	2,912	3,142	3,288	3,123	563
1983-84	39,252	26,981	2,859	3,080	2,781	2,772	2,758	2,798	2,928	3,247	3,222	535
1984-85	39,208	26,905	3,009	3,113	2,904	2,765	2,772	2,761	2,831	3,036	3,186	528
1985-86	39,422	27,034	3,192	3,239	2,941	2,895	2,771	2,776	2,789	2,938	2,982	511
1986-87	39,753	27,420	3,310	3,358	3,054	2,933	2,896	2,775	2,806	2,899	2,870	520
1987-88	40,008	27,933	3,389	3,407	3,173	3,046	2,938	2,901	2,811	2,910	2,839	520
1988-89	40,189	28,501	3,433	3,460	3,223	3,167	3,051	2,945	2,937	2,905	2,853	527
1989-90	40,543	29,152	3,487	3,485	3,289	3,235	3,182	3,067	2,987	3,027	2,853	540
1990-91	41,217	29,878	3,609	3,499	3,327	3,297	3,248	3,197	3,110	3,067	2,979	543
1991-92	42,047	30,506	3,686	3,556	3,360	3,334	3,315	3,268	3,239	3,181	3,020	545
1992-93	42,823	31,088	3,818	3,542	3,431	3,361	3,342	3,325	3,303	3,299	3,129	539
1993-94	43,465	31,504	3,922	3,529	3,429	3,437	3,361	3,350	3,356	3,355	3,249	515
1994-95	44,111	31,898	4,047	3,593	3,440	3,439	3,426	3,372	3,381	3,404	3,302	494
1995-96	44,840	32,341	4,173	3,671	3,507	3,445	3,431	3,438	3,395	3,422	3,356	502

<CG.A.3> continued

<cg.a.3> con</cg.a.3>	itinued	Pub	lic schools, gra	des 9 through 1	2 and postgrad	uate	
,	Total	Grade 9	Grade 10	Grade 11	Grade 12	Ungraded <sup>4</sup>	Post-
						_	graduate <sup>3</sup>
Units	thousands	thousands	thousands	thousands	thousands	thousands	thousands
col. no.	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1910-11	1,157	495	309	208	145		
1911-12	1,201	501	325	219	156		
1912-13	1,333	547	359	248	180		
1913-14	1,432	584	384	266	198		
1914-15	1,562	639	417	287	219		
1915-16	1,711	693	460	317	241		
1916-17 <sup>5</sup>	1,795	743	476	324	251		
1917-18	1,934	816	507	342	269		
1918-19 <sup>5</sup>	2,067	867	541	369	290		
1919-20	2,200	917	576	396	312		
1920-21 <sup>5</sup>	2,537	1,065	679	456	337		
1921-22	2,873	1,214	782	516	362		
1922-23 <sup>5</sup>	3,131	1,271	851	583	426		
1923-24	3,390	1,328	920	651	490		
1924-25 <sup>5</sup>	3,651	1,424	970	716	541		
1925-26	3,757	1,425	1,005	736	592		
1926-27 <sup>5</sup>	3,834	1,451	1,025	752	607		
1927-28	3,911	1,476	1,046	768	622		
1928-29 <sup>5</sup>	4,155	1,551	1,119	824	661		
1929-30	4,399	1,627	1,192	880	701		
1930-31 <sup>5</sup>	4,770	1,702	1,290	973	786	18	
1931-32	5,140	1,778	1,387	1,067	872	37	
1932-33⁵	5,405	1,816	1,464	1,138	939	48	
1933-34	5,669	1,855	1,540	1,209	1,005	59	
1934-35 <sup>5</sup>	5,822	1,913	1,580	1,229	1,035	65	
1935-36	5,975	1,970	1,620	1,249	1,064	71	
1936-37 <sup>5</sup>	6,101	1,975	1,645	1,314	1,107	60	
1937-38	6,227	1,979	1,669	1,379	1,151	48	
1938-39 <sup>5</sup>	6,414	1,995	1,718	1,433	1,216	52	
1939-40	6,601	2,011	1,767	1,486	1,282	55	
1940-41 <sup>5</sup>	6,714	2,034	1,793	1,517	1,323	47	
1941-42	6,388	1,927	1,706	1,451	1,273	31	
1942-43 <sup>5</sup>	6,122	1,898	1,654	1,374	1,170	26	
1943-44	5,554	1,775	1,520	1,230	1,010	20	
1944-45 <sup>5</sup>	5,560	1,743	1,530	1,237	1,016	35	
1945-46	5,622	1,728	1,555	1,256	1,032	50	
1946-47 <sup>5</sup>	5,838	1,761	1,583	1,309	1,120	65	
1947-48	5,653	1,673	1,503	1,272	1,131	75	
1948-49 <sup>5</sup>	5,658	1,709	1,499	1,267	1,126	57	
1949-50	5,725	1,761	1,513	1,275	1,134	42	
1950-51 <sup>5</sup>	5,806	1,781	1,548	1,313	1,128	37	
1951-52	5,882	1,820	1,582	1,338	1,111	31	

School year		Pub	lic schools, gra	des 9 through 1	2 and postgrad	uate	
	Total	Grade 9	Grade 10	Grade 11	Grade 12	Ungraded⁴	Post- graduate <sup>3</sup>
Units	thousands	thousands	thousands	thousands	thousands	thousands	thousands
col. no.	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1953-54	6,290	1,944	1,717	1,412	1,190	27	
1954-55 <sup>5</sup>	6,574	2,028	1,765	1,520	1,246	15	
1955-56	6,873	2,143	1,849	1,543	1,326	13	
1956-57	7,318	2,368	1,974	1,615	1,349	13	
1957-58	7,860	2,480	2,194	1,736	1,431	19	
1958-59	8,258	2,412	2,318	1,955	1,538	35	
1959-60	8,485	2,412	2,258	2,063	1,747	4	
1960-61 <sup>5</sup>	8,821	2,750	2,252	1,997	1,820	2	
1961-62	9,566	3,156	2,595	2,018	1,791	7	
1962-63 <sup>5</sup>	10,372 <sup>6</sup>	3,172	2,981	2,348	1,866	5	
1963-64 <sup>5</sup>	11,110 <sup>6</sup>	3,190	3,006	2,747	2,160	6	
1964-65 <sup>5</sup>	11,628 <sup>6</sup>	3,198	3,085	2,778	2,560	7	
1965-66	11,602 <sup>6</sup>	3,215	2,993	2,741	2,477	7	169
1966-67	11,880 <sup>6</sup>	3,318	3,111	2,756	2,508	8	179
1967-68	12,247	3,395	3,221	2,879	2,525	16	210
1968-69	12,723	3,508	3,310	2,986	2,650	17	251
1969-70	13,037	3,568	3,405	3,047	2,732	21	264
1970-71	13,336	3,654	3,458	3,128	2,775	28	293
1971-72	13,753	3,781	3,571	3,200	2,864	9	328
1972-73	13,848	3,779	3,648	3,248	2,873	10	290
1973-74	14,044	3,801	3,650	3,323	2,918	4	348
1974-75	14,103	3,832	3,675	3,302	2,955	13	326
1975-76	14,304	3,879	3,723	3,354	2,986	23	339
1976-77	14,314	3,825	3,738	3,373	3,015	23	340
1977-78	14,203	3,779	3,686	3,388	3,026	13	311
1978-79	14,088	3,726	3,610	3,312	3,023	(NA)	416
1979-80	13,616	3,526	3,532	3,241	2,969	(NA)	348
1980-81	13,231	3,377	3,368	3,195	2,925	(NA)	366
1981-82	12,764	3,286	3,218	3,039	2,907	(NA)	314
1982-83	12,405	3,248	3,137	2,917	2,787	(NA)	315
1983-84	12,271	3,330	3,103	2,861	2,678	(NA)	299
1984-85	12,304	3,440	3,145	2,819	2,599	(NA)	300
1985-86	12,388	3,439	3,230	2,866	2,550	(NA)	303
1986-87	12,333	3,256	3,215	2,954	2,601	(NA)	308
1987-88	12,076	3,143	3,020	2,936	2,681	(NA)	296
1988-89	11,687	3,106	2,895	2,749	2,650	(NA)	288
1989-90	11,390	3,141	2,868	2,629	2,473	(NA)	279
1990-91	11,338	3,169	2,896	2,612	2,381	(NA)	282
1991-92	11,541	3,313	2,915	2,645	2,392	(NA)	275
1992-93	11,735	3,352	3,027	2,656	2,431	(NA)	269
1993-94	11,961	3,487	3,050	2,751	2,424	(NA)	248
1994-95	12,213	3,604	3,131	2,748	2,488	(NA)	242
1995-96	12,500	3,704	3,237	2,826	2,487	(NA)	245

Sources: <CG.A.3.1> to <CG.A.3.19>, 1910-11 to 1980-81, U.S. Department of Education, 120 Years of American Education: A Statistical Portrait (Washington, D.C.: U.S. G.P.O., 1993), table 10. The underlying sources are U.S. Office of Education, Annual Report of the Commissioner of Education, U.S. Office of Education, Biennial Survey of Education in the United States, and U.S. Department of Education, Digest of Education Statistics, annual issues (Washington, D.C.: U.S. G.P.O.). 1981-82 to 1995-96, Digest of Education Statistics 1997, table 43.

The proportion of eighth graders continuing to ninth grade is often too large, and the proportion of seventh graders continuing to eighth grade is often too small, in these data. For example, the proportion of continuing from eighth to ninth grade is above one for most cohorts entering fifth grade since 1925, whereas the proportion continuing from seventh to eighth grade for cohorts entering fifth grade from 1925 to the early 1940s is distinctly too low. On average, however, the proportion continuing from seventh to ninth grade appears reasonable in comparison with the other transition statistics. There are several possible reasons. The number of ninth graders in public schools may be inflated, compared with the number of eighth graders, because many pupils in private schools transfer to public schools for high school. The discrepancies, however, may also be due to the misclassification of eighth graders as secondary school pupils.

- \1: Enrollment data prior to 1965 include students who enrolled at any time during the school year. After 1965, enrollment data include only those students who enrolled at the beginning of the year.
- \2: In later years, data contain a relatively small number of prekindergarten students.
- \3: Ungraded enrollment includes those children enrolled in schools or special programs that do not differentiate by grade level. Prior to fall 1965, enrollment in ungraded and special classes was prorated among the regular grades.
- \4: Postgraduate students include those who have finished their requirements for a diploma but are taking classes at a secondary school.
- \5: Estimated.
- \6: These data are not identical to those in the underlying sources because of the inclusion of seventh and eighth grade enrollments in the secondary school data for several states.

<CG.A.4> School enrollment and school enrollment rates, by age and sex: 1940 to 1995<sup>1</sup>

	belloof e								nales and fe	emales, by	age			
Year	Total, 5	5 to 34	5 ar	nd 6	7 to	13	14 to	17	18 ar	nd 19	20 to	24	25 to	o 34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
HS no.	H442	H442	H443	H443	H444	H444	H445	H445	H446	H446	H447	H447	H448	H448
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1940 <sup>2</sup>	$26,759^3$	57.7	1,805	43.0	15,035	95.0	7,709	79.3	1,449	28.9	761	6.6		
1945	25,515 <sup>3</sup>	64.0	2,833	60.4	14,747	98.1	6,956	78.4	668	20.7	311	3.9		
1946	26,924 <sup>3</sup>	61.1	3,030	62.0	14,966	98.3	6,900	79.6	884	22.5	1,144	10.1		
1947	27,746	41.1	3,069	58.0	15,302	98.5	6,737	79.3	1,007	24.3	1,183	10.2	448	2.0
1948	28,390	41.5	3,237	56.0	15,688	98.1	6,824	81.8	1,134	26.9	1,103	9.7	405	1.8
1949	29,283	42.4	3,487	59.3	16,374	98.6	6,778	81.6	1,028	25.3	1,041	9.2	576	2.5
1950	30,073 <sup>4</sup>	51.6	3,304	58.2	17,222	98.7	6,988	83.4	1,199	29.7	1,001	9.2	360 <sup>5</sup>	3.0
1951	30,466 <sup>4</sup>	52.8	3,196	54.5	17,946	99.1	7,216	85.2	974	26.2	846	8.6	288 <sup>5</sup>	2.5
1952	31,980	45.4	3,732	54.7	18,414	98.8	7,440	85.2	1,062	28.8	904	9.7	428	1.8
1953	32,796	46.4	4,038	55.7	18,525	99.4	7,538	85.9	1,180	31.2	981	11.1	534	2.3
1954	36,083	50.0	5,443	77.3	19,952	99.4	7,784	87.1	1,268	32.4	999	11.2	635	2.7
1955	37,426	50.8	5,520	78.1	21,028	99.2	7,970	86.9	1,232	31.5	1,010	11.1	667	2.9
1956	39,353	52.3	5,597	77.6	21,946	99.3	8,413	88.2	1,407	35.4	1,192	12.8	798	3.5
1957	41,166	53.6	5,829	78.6	22,705	99.5	9,067	89.5	1,409	34.9	1,336	14.0	820	3.6
1958	42,900	54.8	6,101	80.4	23,623	99.5	9,446	89.2	1,564	37.6	1,307	13.4	858	3.8
1959	44,370	55.5	6,222	80.0	24,626	99.4	9,839	90.2	1,601	36.8	1,283	12.7	799	3.8
1960	46,259	56.4	6,438	80.7	25,621	99.5	10,240	90.3	1,817	38.4	1,350	13.1	792	3.6
1961	47,708	56.8	6,638	81.7	25,801	99.3	11,163	91.4	1,952	38.0	1,468	13.7	686	3.2
1962	48,704	57.8	6,651	82.2	25,634	99.3	11,740	92.0	2,144	41.8	1,725	15.6	810	3.8
1963	50,356	58.5	6,768	82.7	26,203	99.3	12,517	92.9	2,061	40.9	2,014	17.3	793	3.7
1964	51,660	58.7	6,842	83.3	26,725	99.0	13,014	93.1	2,196	41.6	2,048	16.8	835	3.9
1965	53,769	59.7	6,995	84.4	27,450	99.4	13,033	93.2	2,930	46.3	2,360	19.0	1,001	4.7
1966	55,070	60.0	7,156	85.1	27,895	99.3	13,293	93.7	3,176	47.2	2,547	19.9	1,003	4.6
1967	56,511	60.2	7,352	87.4	28,286	99.3	13,638	93.7	3,026	47.6	3,002	22.0	1,207	5.4
1968	57,564	60.1	7,241	87.6	28,620	99.1	14,118	94.2	3,317	50.4	2,988	21.4	1,280	5.5
1969	58,718	60.1	7,155	88.4	28,844	99.1	14,452	94.0	3,351	50.2	3,380	23.0	1,536	6.4

<CG.A.4> continued

	continucu													
				Sch	ool enrollm	nent and e	enrollment	rates of m	ales and fe	emales, by	age			
Year	Total, 5	to 34	5 an	d 6	7 to	13	14 to	17	18 ar	nd 19	20 to	o 24	25 to	ა 34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1970	58,896	59.0	7,000	89.5	28,943	99.2	14,796	94.1	3,322	47.7	3,359	21.5	1,477	6.0
1971	59,630	58.6	6,818	91.6	28,823	99.1	15,144	94.5	3,557	49.2	3,606	21.9	1,682	6.6
1972	58,486	56.9	6,340	91.9	27,907	99.2	15,267	93.3	3,458	46.3	3,692	21.6	1,822	6.8
1973	57,703	55.4	6,228	92.5	27,289	99.2	15,354	92.9	3,284	42.9	3,659	20.8	1,889	6.7
1974	58,252	55.3	6,421	94.2	26,833	99.3	15,529	92.9	3,375	43.1	3,816	21.4	2,278	7.8
1975	58,867	55.1	6,590	94.7	26,104	99.3	15,698	93.6	3,765	46.9	4,121	22.4	2,589	8.5
1976	58,533	54.3	6,701	95.6	25,455	99.2	15,649	93.7	3,768	46.2	4,379	23.3	2,581	8.2
1977	58,078	53.6	6,433	95.8	25,052	99.4	15,529	93.6	3,762	46.2	4,390	22.9	2,912	9.0
1978	56,544	52.2	5,997	95.3	24,597	99.1	15,356	93.7	3,700	45.4	4,245	21.8	2,649	8.0
1979	55,717	51.2	5,846	95.8	24,145	99.2	14,970	93.6	3,693	45.0	4,290	21.7	2,773	8.1
1980	55,068	50.4	5,853	95.7	23,751	99.3	14,411	93.4	3,788	46.4	4,446	22.3	2,819	7.9
1981	56,057	49.7	5,955	94.0	24,025	99.2	14,373	94.1	3,976	49.0	4,700	22.5	3,028	8.0
1982	55,483	49.3	6,070	95.0	23,654	99.0	13,928	94.4	3,837	47.8	4,897	23.5	3,097	8.0
1983	55,120	49.0	6,214	95.5	23,278	99.2	13,791	95.0	3,938	50.4	4,720	22.7	3,179	8.1
1984	54,704	48.6	6,332	94.5	22,854	99.2	13,793	94.7	3,724	50.1	4,886	23.7	3,115	7.7
1985	55,214	48.9	6,697	96.1	22,849	99.2	14,016	94.9	3,716	51.6	4,776	24.0	3,160	7.7
1986	55,340	48.8	6,917	95.3	22,987	99.2	13,868	94.9	3,872	54.6	4,584	23.6	3,112	7.4
1987	55,943	49.3	6,956	95.2	23,521	99.5	13,532	95.0	3,982	55.6	4,792	25.5	3,160	7.5
1988	56,049	49.3	7,044	96.0	24,044	99.7	13,042	95.1	4,059	55.6	4,816	26.1	3,044	7.1
1989	56,338	49.7	6,990	95.2	24,431	99.3	12,747	95.7	4,125	56.0	4,837	27.0	3,208	7.5
1990	57,297	50.6	7,207	96.5	25,016	99.6	12,653	95.8	4,044	57.2	5,083	28.6	3,294	7.7
1991	58,208	51.4	7,178	95.4	25,445	99.6	12,789	96.0	3,969	59.6	5,406	30.2	3,422	8.1
1992	59,021	52.2	7,252	95.5	25,768	99.4	13,133	96.7	4,012	61.4	5,604	31.6	3,251	7.8
1993	59,455	52.6	7,298	95.4	26,110	99.5	13,350	96.5	4,063	61.6	5,389	30.8	3,245	7.9
1994	62,510	53.8	7,752	96.7	26,768	99.3	14,414	96.6	4,180	60.2	5,857	32.0	3,538	8.6
1995	62,897	54.1	7,901	96.0	27,003	98.9	14,648	96.3	4,274	59.4	5,570	31.5	3,500	8.6

<CG.A.4> continued

<b>₹€</b> 0.7 1. 1>	continucu													
					School	enrollmer	t and enro	Ilment rate	es of males	, by age				
Year	Total, 5	5 to 34	5 ar	nd 6	7 to	13	14 to	o 17	18 ar	nd 19	20 to	24	25 to	o 34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
HS no.	H442	H442	H443	H443	H444	H444	H445	H445	H446	H446	H447	H447	H448	H448
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1940 <sup>2</sup>	13,615	58.6	901	42.3	7,607	94.8	3,870	78.9	770	30.8	467	8.2		
1945	12,660	72.7	1,423	59.6	7,456	97.7	3,475	78.0	192	21.6	114	5.6		
1946	13,941	64.9	1,514	60.8	7,585	98.0	3,435	79.2	469	29.0	938	17.7		
1947	14,635	44.3	1,549	57.4	7,781	98.6	3,364	78.9	587	31.4	947	17.0	407	3.8
1948	14,991	44.8	1,628	55.1	7,990	98.3	3,436	81.9	682	34.3	898	16.5	358	
1949	15,489	45.8	1,807	60.2	8,330	98.5	3,447	82.5	593	31.6	827	15.4	487	4.5
1950	15,736	54.8	1,649	56.8	8,773	98.7	3,568	84.4	680	35.7	733	14.3	333	5.9
1951	15,774	56.8	1,648	55.1	9,148	99.1	3,614	85.2	534	32.4	602	14.3	228	4.2
1952	16,644	49.4	1,912	54.8	9,382	98.7	3,758	85.4	612	37.2	630	16.9	350	3.2
1953	16,974	50.2	2,035	55.0	9,405	99.2	3,844	86.8	642	37.7	636	18.5	414	3.7
1954	18,759	54.0	2,746	76.3	10,138	99.2	4,002	88.7	730	40.6	677	19.1	465	4.2
1955	19,573	54.9	2,821	78.1	10,725	99.2	4,096	88.6	752	42.5	686	18.1	494	4.5
1956	20,522	56.3	2,839	77.1	11,179	99.1	4,275	89.1	809	45.1	830	20.6	620	5.7
1957	21,509	57.5	2,963	78.3	11,584	99.5	4,646	91.1	780	43.3	897	21.3	639	5.9
1958	22,497	58.7	3,123	80.6	12,059	99.5	4,854	90.7	898	47.5	915	21.0	648	
1959	23,192	59.1	3,158	79.5	12,556	99.3	5,041	91.4	918	45.6	892	19.6	627	5.9
1960	24,234	60.0	3,292	80.8	13,074	99.5	5,247	91.3	1,063	47.8	936	19.9	621	5.9
1961	24,944	60.4	3,402	82.0	13,167	99.3	5,705	92.2	1,170	48.6	989	20.2	511	4.9
1962	25,452	61.7	3,399	82.6	13,003	99.2	6,032	93.7	1,212	51.2	1,177	23.4	629	6.2
1963	26,243	62.3	3,440	82.7	13,280	99.1	6,402	94.2	1,180	51.0	1,365	25.6	576	
1964	26,851	62.3	3,478	83.4	13,548	98.8	6,658	94.4	1,238	50.9	1,332	23.8	597	5.9
1965	28,059	63.5	3,555	84.4	13,932	99.3	6,613	93.6	1,689	55.6	1,559	27.6	711	7.0
1966	28,733	64.1	3,619	84.5	14,139	99.2	6,770	94.4	1,841	57.8	1,667	29.2	697	6.8
1967	29,368	64.1	3,719	86.6	14,342	99.1	6,975	94.7	1,637	56.3	1,862	30.6	832	7.8
1968	30,051	64.3	3,683	87.3	14,513	98.9	7,199	95.0	1,892	60.4	1,867	30.5	897	8.1
1969	30,583	64.1	3,623	87.7	14,620	98.9	7,374	95.0	1,886	59.4	2,070	32.0	1,011	8.9

<CG.A.4> continued

	Continued									, ,,				
							enrollment	rates of r	nales, by a	<u> </u>				
Year	Total, 5	5 to 34	5 ar	nd 6	7 to	13	14 to	17	18 ar	nd 19	20 to	24	25 to	ງ 34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1970	30,642	62.6	3,545	88.9	14,688	99.0	7,531	94.8	1,821	54.4	2,062	29.3	996	8.4
1971	31,114	62.1	3,450	90.9	14,633	98.9	7,720	95.3	1,939	55.4	2,217	29.2	1,155	9.4
1972	30,505	60.1	3,220	91.7	14,195	99.1	7,795	94.0	1,857	51.2	2,243	27.8	1,195	9.2
1973	30,012	58.3	3,162	92.2	13,884	99.2	7,845	93.7	1,783	47.9	2,118	25.2	1,220	9.0
1974	30,178	57.9	3,280	94.4	13,650	99.2	7,906	93.3	1,731	45.8	2,202	25.8	1,409	10.0
1975	30,502	57.7	3,346	94.4	13,267	99.0	8,042	94.6	1,940	49.9	2,334	26.4	1,573	10.7
1976	30,209	56.6	3,422	95.6	12,951	99.0	8,014	94.6	1,907	48.2	2,358	26.0	1,557	10.2
1977	29,831	55.6	3,246	94.7	12,751	99.3	7,934	94.3	1,919	48.4	2,401	25.9	1,580	10.0
1978	29,002	54.0	3,054	95.1	12,514	99.0	7,814	93.9	1,902	47.8	2,290	24.3	1,428	8.8
1979	28,459	52.8	3,003	96.3	12,285	99.0	7,680	94.5	1,874	46.6	2,229	23.3	1,388	8.3
1980	27,952	51.6	2,971	95.0	12,110	99.2	7,321	93.7	1,879	47.1	2,299	23.8	1,372	7.9
1981	28,577	51.0	3,051	94.2	12,253	99.1	7,309	94.3	2,018	50.5	2,467	24.4	1,479	8.0
1982	28,255	50.5	3,093	94.7	12,075	99.1	7,108	94.9	1,937	48.9	2,534	25.0	1,508	8.0
1983	28,230	50.4	3,166	95.1	11,887	99.1	7,021	95.1	1,956	50.5	2,582	25.5	1,618	8.4
1984	28,013	50.0	3,220	94.0	11,665	99.1	7,018	94.7	1,924	52.4	2,651	26.3	1,535	7.8
1985	28,087	50.1	3,422	95.3	11,666	99.2	7,186	95.4	1,852	52.2	2,467	25.6	1,494	7.5
1986	28,262	50.0	3,544	96.0	11,768	99.1	7,095	94.9	1,998	57.1	2,305	24.5	1,552	7.5
1987	28,547	50.5	3,580	95.7	12,057	99.7	6,928	95.3	2,047	57.9	2,469	27.2	1,466	7.0
1988	28,483	50.4	3,573	95.9	12,329	99.7	6,679	95.4	2,032	56.2	2,448	27.6	1,422	6.8
1989	28,539	50.4	3,551	95.1	12,509	99.2	6,583	96.1	2,061	56.6	2,339	26.9	1,496	7.1
1990	29,077	51.4	3,705	96.5	12,832	99.6	6,491	95.9	2,038	58.2	2,552	29.6	1,459	6.9
1991	29,612	52.3	3,655	95.0	13,033	99.8	6,584	96.4	1,976	59.8	2,710	31.0	1,653	7.9
1992	29,802	52.7	3,721	95.7	13,197	99.5	,	97.3	2,018		,	30.7	1,431	7.0
1993	30,236	53.4	3,750	95.5	13,359	99.6	6,890	97.1	2,049	61.6	2,727	31.8	1,461	7.2
1994	31,586	54.2	3,965	97.0	13,701	99.3	7,358	96.6	2,104	60.4	2,831	31.2	1,628	8.0
1995	31,865	54.6	4,041	95.3	13,800	99.0	7,554	96.7	2,150	59.5	2,711	31.0	1,608	8.0

<CG.A.4> continued

CO.7 1. 12	Continuca													
					School e	enrollment	and enrol	lment rate	s of female	s, by age				
Year	Total,	5 to 34	5 ar	nd 6	7 to	13	14 to	17	18 ar	nd 19	20 to	24	25 to	o 34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
HS no.	H442	H442	H443	H443	H444	H444	H445	H445	H446	H446	H447	H447	H448	H448
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1940 <sup>2</sup>	13,145 <sup>3</sup>	56.9	904	43.7	7,428	95.2	3,840	79.7	680	26.9	294	5.0		
1945	12,855 <sup>3</sup>	57.3	1,410	61.3	7,291	98.4	3,481	78.7	476	20.3	197	3.3		
1946	12,983 <sup>3</sup>	57.5	1,516	63.3	7,381	98.5	3,465	80.1	415	18.0	206	3.4		
1947	13,111	38.0	1,520	58.7	7,521	98.5	3,373	79.8	420	18.5	236	3.9	41	0.3
1948	13,399	38.4	1,608	56.8	7,698	98.0	3,388	81.7	452	20.3	206	3.4	48	0.4
1949	13,794	39.2	1,679	58.4	8,045	98.7	3,331	80.7	435	19.9	215	3.7	89	0.7
1950	14,337 <sup>4</sup>	48.4	1,655	59.5	8,449	98.7	3,420	82.3	519	24.3	268	4.6	27 <sup>5</sup>	0.4
1951	14,692 <sup>4</sup>	49.1	1,548	54.0	8,798	99.1	3,602	85.2	440	21.3	244	4.3	60 <sup>5</sup>	1.0
1952	15,336	41.9	1,820	54.6	9,032	98.9	3,682	85.0	450	22.1	274	4.9	78	0.6
1953	15,822	43.0	2,003	56.6	9,120	99.6	3,695	85.0	538	25.9	346	6.4	120	0.9
1954	17,324	46.3	2,697	78.3	9,813	99.6	3,782	85.4	538	25.4	322	6.0	171	1.4
1955	17,853	47.0	2,700	78.1	10,304	99.1	3,873	85.2	480	22.5	324	6.1	173	1.4
1956	18,801	48.7	2,758	78.2	10,767	99.4	4,138	87.3	598	27.4	362	6.8	178	1.5
1957	19,657	50.0	2,866	79.0	11,121	99.5	4,421	87.8	629	28.1	439	8.2	181	1.5
1958	20,404		2,978	80.2	11,564	99.4	4,591	87.6	667	29.4	393	7.3	211	1.8
1959	21,178	52.0	3,064	80.5	12,070	99.6	4,798	89.0	683	29.2	391	7.1	172	1.5
1960	22,025	52.8	3,146	80.6	12,547	99.6	4,993	89.2	754	30.0	414	7.4	171	1.7
1961	22,764	53.4	3,236	81.4	12,634	99.3	5,458	90.5	782	28.6	479	8.3	175	1.5
1962	23,252	54.0	3,252	81.7	12,631	99.4	5,708	90.3	932	33.7	548	9.1	181	1.6
1963	24,113	54.9	3,328	82.6	12,923	99.6	6,115	91.6	881	32.3	649	10.3	217	1.9
1964	24,809	55.3	3,364	83.2	13,177	99.2	6,356	91.8	958	33.7	716	10.9	238	2.1
1965	25,710	56.0	3,440	84.4	13,518	99.4	6,420	92.8	1,241	37.7	801	11.8	290	2.6 2.7
1966	26,337	56.1	3,537	85.7	13,756	99.5	6,523	92.9	1,335	37.7	880	12.4	306	2.7
1967	27,144	56.5	3,632	88.2	13,944	99.4	6,662	92.6	1,390	40.3	1,139	15.1	375	3.2
1968	27,513	56.1	3,558	88.0	14,106	99.3		93.4	1,425	41.3		14.3		3.2
1969	28,135	56.3	3,532	89.1	14,223	99.5	7,078	93.1	1,465	41.8	1,310	16.0	526	4.2

<CG.A.4> continued

<b>*******</b>	continucu													
				Sch	ool enrollm	nent and e	enrollment	rates of fe	males, by a	age (continu	ued)			
Year	Total, \$	5 to 34	5 ar	nd 6	7 to	13	14 to	17	18 ar	nd 19	20 to	24	25 to	34
	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate	number	rate
HS no.	H442	H442	H443	H443	H444	H444	H445	H445	H446	H446	H447	H447	H448	H448
Units	000	%	000	%	000	%	000	%	000	%	000	%	000	%
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1970	28,254	55.5	3,455	90.2	14,255	99.4	7,265	93.4	1,501	41.6	1,297	15.2	480	3.8
1971	28,515	55.2	3,368	92.3	14,190	99.4	7,424	93.7	1,617	43.4	1,389	15.7	527	4.0
1972	27,980	53.8	3,120	92.2	13,712	99.3	7,471	92.6	1,601	41.8	1,449	16.0	627	4.5
1973	27,689	52.6	3,066	92.9	13,405	99.3	7,509	92.1	1,500	38.2	1,540	16.7	669	4.6
1974	28,075	52.7	3,140	93.9	13,183	99.5	7,624	92.5	1,644	40.7	1,615	17.3	869	5.8
1975	28,365	52.6	3,244	95.1	12,837	99.6	7,657	92.6	1,825	44.2	1,786	18.7	1,016	6.5
1976	28,323	52.1	3,279	95.5	12,503	99.3	7,634	92.8	1,861	44.4	2,021	20.8	1,025	6.3
1977	28,246	51.7	3,187	96.9	12,301	99.5	7,594	93.0	1,844	44.0	1,988	20.0	1,332	8.0
1978	27,544	50.4	2,944	95.5	12,083	99.3	7,542	93.5	1,798	43.0	1,955	19.4	1,222	7.1
1979	27,258	49.7	2,843	95.2	11,860	99.4	7,290	92.6	1,819	43.4	2,061	20.2	1,385	7.8
1980	27,115	49.2	2,882	96.4	11,641	99.3	7,089	93.1	1,910	45.8	2,147	20.8	1,446	7.9
1981	27,482	48.4	2,904	93.8	11,771	99.4	7,065	93.9	1,958	47.5	2,234	20.8	1,550	8.0
1982	27,227	48.1	2,977	95.3	11,579	99.3	6,820	94.0	1,899	46.8	2,363	22.1	1,589	8.0
1983	26,891	47.6	3,048	95.8	11,391	99.3	6,770	94.9	1,983	50.3	2,138	20.1	1,561	7.8
1984	26,690	47.3	3,112	95.1	11,190	99.4	6,774	94.7	1,800	47.9	2,235	21.2	1,579	7.7
1985	27,125	47.8	3,274	97.0	11,182	99.3	6,830	94.5	1,864	51.0	2,309	22.5	1,666	8.0
1986	27,079	47.6	3,373	94.6	11,221	94.5	6,772	90.6	1,874	53.5	2,279	24.2	1,560	7.6
1987	27,396	48.1	3,376	94.6	11,463	99.4	6,603	94.5	1,936	53.4	2,324	24.0	1,694	7.9
1988	27,565	48.3	3,471	96.0	11,714	99.7	6,363	94.8	2,028	55.2	2,367	24.7	1,622	7.5
1989	27,798	48.9	3,439	95.2	11,922	99.4	6,164	95.3	2,063	55.4	2,498	27.1	1,712	7.9
1990	28,222	49.8	3,502	96.4	12,184	99.7	6,163	95.7	2,006	56.3	2,532	27.7	1,835	8.5
1991	28,596	50.5	3,522	95.8	12,412	99.5	6,205	95.6	1,993	59.4	2,695	29.4	1,769	8.3
1992	29,218	51.7	3,531	95.2	12,571	99.2	6,363	96.0	1,994	61.2	2,938	32.5	1,820	8.6
1993	29,219	51.8	3,547	95.2	12,752	99.4	6,461	95.9	2,014	61.7	2,662	29.8	1,784	8.6
1994	30,924	53.3	3,787	96.4	13,068	99.4	7,056	96.6	2,076	60.0	3,025	32.8	1,911	9.1
1995	31,031	53.5	3,860	96.8	13,203	98.8	7,093	95.7	2,124	59.2	2,859	31.9	1,892	9.2

Sources: <CG.A.4.1> to <CG.A.4.42>, 1940 to 1991, U.S. Department of Education, *120 Years of American Education: A Statistical Portrait* (Washington, D.C.: U.S. G.P.O., 1993), table 3. The underlying sources are: 1940, U.S. Bureau of the Census, *U.S. Census of Population: 1950*, vol. II, part 1; 1945 to 1969, *Current Population Reports*, series P-20, nos. 10, 24, 30, 34, 45, 52, 54, 66, 74, 80, 93, 101, 110, 117, 126, 129, 148, 162, 167, 190, 206, and 222; 1970 to 1991, Current Population Survey, survey data files. 1992 to 1995, *Current Population Reports*, series P-20, nos. 474, 479, 487, and 495.

The estimates are based on data obtained in October in the Current Population Survey of the Bureau of the Census, except that data shown for 1940 are based on complete enumeration of the population and were published in volume II of the 1950 census reports on population. Except for 1940, data are for the civilian population excluding the relatively small number in institutions. Data shown for 1940 relate to the total population, including those in institutions and all members of the Armed Forces (about 267,000) enumerated on April 1.

The school enrollment statistics from the Current Population Survey (CPS) are based on replies to the enumerator's inquiry as to whether the person was enrolled in school. In the Census of Population for 1940 and 1950, and in the CPS, 1954 to 1991, enrollment was defined as enrollment in "regular" schools only—that is, schools where enrollment may lead toward an elementary or high school diploma, or to a college, university, or professional degree. Such schools included public and private nursery schools, kindergartens, elementary and secondary schools, colleges, universities, and professional schools. Enrollment could be either full-time or part-time, day or night.

If a person was receiving regular instruction at home from a tutor and if the instruction was considered comparable to that of a regular school or college, the person was counted as enrolled. Enrollment in a correspondence course was counted only if the person received credit in the regular school system. Enrollments in business and trade schools at the postsecondary level were excluded if the coursework did not lead to a degree.

Children in kindergarten were included in the "regular" school enrollment figures in the Current Population Survey beginning in 1950; children enrolled in nursery school were included in 1967. Children enrolled in kindergarten were not included in the "regular" school enrollment figures in the 1950 Census of Population; however, they have been included here to make the data comparable with earlier years and with current practice. In censuses prior to 1950, no attempt was made to exclude children in kindergarten so that the statistics for those years include varying proportions attending kindergarten.

Information on school enrollment is also collected and published by the Department of Education. These data are obtained from reports of school surveys and censuses. They are, however, only roughly comparable with data collected by the Bureau of the Census from households, because of differences in definitions, time references, population coverage, and enumeration methods.

- \1: Unless otherwise noted, enrollment data are for October.
- $\2$ : As of April 1.
- \3: Data for 1940 through 1946 are for ages 5 to 24.
- \4: Data for 1950 and 1951 are for ages 5 to 29.
- \5: 25 to 29 years old.

<CG.A.6> Average daily attendance in, and the average school term of, public elementary and secondary schools: 1869-70 to 1994-95

	School attendance									
School year	Average daily	Average length of school	Average number of days							
	attendance	term	attended per pupil enrolled							
Units	thousands	days	days							
HS no.	H520	H521	H522							
col. no.	(1)	(2)	(3)							
1869-70	4,077,000	132.2	78.4							
1870-71	4,545,000	132.1	79.4							
1871-72	4,659,000	133.4	79.5							
1872-73	4,745,000	129.1	76.5							
1873-74	5,051,000	128.8	77.0							
1874-75	5,248,000	134.4	77.9							
1875-76	5,291,000	133.1	79.4							
1876-77	5,427,000	132.1	80.0							
1877-78	5,783,000	132.0	80.9							
1878-79	5,876,000	130.2	80.5							
1879-80	6,144,000	130.3	81.1							
1880-81	6,146,000	130.0	80.0							
1881-82	6,331,000	131.2	81.3							
1882-83	6,652,000	129.8	81.1							
1883-84	7,056,000	129.1	82.9							
1884-85	7,298,000	130.7	83.6							
1885-86	7,526,000	130.4	84.1							
1886-87	7,682,000	131.3	84.9							
1887-88	7,907,000	132.3	85.9							
1888-89	8,006,000	133.7	86.4							
1889-90	8,154,000	134.7	86.3							
1890-91	8,329,000	135.7	86.6							
1891-92	8,561,000	136.9	88.4							
1892-93	8,856,000	136.3	89.6							
1893-94	9,188,000	139.5	91.6							
1894-95	9,549,000	139.5	93.5							
1895-96	9,781,000	140.5	94.8							
1896-97	10,053,000	142.0	96.3							
1897-98	10,356,000	143.0	98.0							
1898-99	10,389,000	143.0	97.9							
1899-1900	10,633,000	144.3	99.0							
1900-01	10,716,000	143.7	98.0							
1901-02	11,064,000	144.7	100.6							
1903-03	11,055,000	147.2	101.7							
1903-03	11,318,000	146.7	102.1							
1903-04	11,482,000	150.9	105.2							
1905-06	11,712,000	150.6	106.0							
1906-07	11,926,000	151.8	107.3							
1907-08	12,154,000	154.1	109.8							

## <CG.A.6> continued

	School attendance (continued)										
School year	Average daily attendance	Average length of school term	Average number of days attended per pupil enrolled								
Units	thousands	days	days								
col. no.	(1)	(2)	(3)								
1908-09	12,685,000	155.3	112.6								
1909-10	12,827,000	157.5	113.0								
1910-11	12,872,000	156.8	111.8								
1911-12	13,302,000	158.8	115.6								
1912-13	13,614,000	158.1	115.6								
1913-14	14,216,000	158.7	117.8								
1914-15	14,986,000	159.4	121.2								
1915-16	15,359,000	160.3	120.9								
1917-18	15,549,000	160.7	119.8								
1919-20	16,150,000	161.9	121.2								
1921-22	18,432,000	164.0	130.6								
1923-24	19,132,000	168.3	132.5								
1925-26	19,856,000	169.3	135.9								
1927-28	20,608,000	171.5	140.4								
1929-30	21,265,000	172.7	143.0								
1931-32	22,245,000	171.2	144.9								
1933-34	22,458,000	171.6	145.8								
1935-36	22,299,000	173.0	146.3								
1937-38	22,298,000	173.9	149.3								
1939-40	22,042,000	175.0	151.7								
1941-42	21,031,000	174.7	149.6								
1943-44	19,603,000	175.5	147.9								
1945-46	19,849,000	176.8	150.6								
1947-48	20,910,000	177.6	155.1								
1949-50	22,284,000	177.9	157.9								
1951-52	23,257,000	178.2	156.0								
1953-54	25,643,871	178.6	158.9								
1955-56	27,740,149	178.0	158.5								
1957-58	29,722,275	177.6	157.4								
1959-60*	32,477,440	178.0	160.2								
1961-62	34,682,340	179.1	162.3								
1963-64	37,405,058	179.0	163.2								
1965-66	39,154,497	178.9	163.5								
1967-68	40,827,965	178.8	163.2								
1969-70	41,934,376	178.9	161.7								
1970-71	42,428,000	(NA)	(NA)								
1971-72	42,254,272	179.3	161.7								
1972-73	42,179,000	(NA)	(NA)								
1973-74	41,438,054	178.7	159.5								
1974-75	41,524,000	(NA)	(NA)								
1975-76	41,269,720	178.3	161.1								

<CG.A.6> continued

	School attendance (continued)										
School year	Average daily	Average length of school	Average number of days								
	attendance	term	attended per pupil enrolled								
Units	thousands	days	days								
col. no.	(1)	(2)	(3)								
1976-77	40,832,000	(NA)	(NA)								
1977-78	40,079,590	(NA)	(NA)								
1978-79	39,075,000	(NA)	(NA)								
1979-80	38,288,911	178.5 <sup>1</sup>	160.8 <sup>1</sup>								
1980-81	37,703,744	178.2	160.7								
1981-82	37,094,652	(NA)	(NA)								
1982-83	36,635,868	(NA)	(NA)								
1983-84	36,362,978	(NA)	(NA)								
1984-85	36,404,261	(NA)	(NA)								
1985-86	36,523,103	(NA)	(NA)								
1986-87	36,863,867	(NA)	(NA)								
1987-88	37,050,707	(NA)	(NA)								
1988-89	37,268,072	(NA)	(NA)								
1989-90	37,799,296	(NA)	(NA)								
1990-91	38,426,543	179.8	(NA)								
1991-92	38,960,783	(NA)	(NA)								
1992-93	39,570,462	(NA)	(NA)								
1993-94	40,146,393	(NA)	(NA)								
1994-95	40,720,763	(NA)	(NA)								

Sources: <CG.A.6.1> to <CG.A.6.3>, 1869-70 to 1989-90, U.S. Department of Education, 120 Years of American Education: A Statistical Portrait (Washington, D.C.: U.S. G.P.O., 1993), table 14, although see below for additional source for <CG.A.6.1>. The underlying sources are: U.S. Office of Education, Annual Report of the United States Commissioner of Education; U.S. Office of Education, Biennial Survey of Education in the United States, and U.S. Department of Education, Digest of Education Statistics, annual issues (Washington, D.C.: U.S. G.P.O.). <CG.A.6.1>, even years 1953-54 to 1977-78, and all years 1979-80 to 1994-95, Digest 1997, table 51. <CG.A.6.2>, 1990-91, Digest of Education Statistics 1997, table 39

Figures for average daily attendance in public schools were computed by dividing the total number of days attended by all pupils enrolled by the number of days school was actually in session. Only days when the pupils were under the guidance and direction of teachers are considered as days in session.

### Footnotes:

\1: Estimated by the National Center for Education Statistics.

<CG.A.7> Public elementary and secondary day school teachers and instructional staff, counts and average annual salaries: 1869-70 to 1994-95

School year	Elementa secondary		Elementary school classroom	Secondary school classroom	seconda	ntary and ary school teachers <sup>1, 2</sup>	Average	e annual sal	ary (current	dollars)
	Instructional staff	Classroom teachers <sup>1, 2</sup>	teachers <sup>2</sup>	teachers <sup>2</sup>	Males	Females	All Instructional staff <sup>3</sup>	All classroom teachers <sup>4</sup>	Elementary school classroom teachers	Secondary school classroom teachers
Units	thousands	thousands	thousands	thousands	thousands	thousands	current dollars	current dollars	current dollars	current dollars
HS no.	H523	H526 <sup>2</sup>	new	New	H527 <sup>2</sup>	H528 <sup>2</sup>	H524 <sup>3</sup>	new	new	new
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1869-70		201			78	123	189			
1870-71		220			90	130	(NA)			
1871-72		230			95	135	(NA)			
1872-73		238			98	140	(NA)			
1873-74		248			103	145	(NA)			
1874-75		258			109	149	(NA)			
1875-76		260			110	150	(NA)			
1876-77		267			114	153	(NA)			
1877-78		277			119	158	(NA)			
1878-79		280			121	159	(NA)			
1879-80		287			123	164	195			
1880-81		294			123	171	(NA)			
1881-82		299			119	180	(NA)			
1882-83		304			116	188	(NA)			
1883-84		314			119	195	(NA)			
1884-85		326			122	204	224			
1885-86		331			124	208	(NA)			
1886-87		339			127	212	(NA)			
1887-88		347			126	221	(NA)			
1888-89		357			124	232	(NA)			
1889-90		364	355	9	126	238	252			
1890-91		368	(NA)	(NA)	123	245	(NA)			
1891-92		374	(NA)	(NA)	122	253	(NA)			

# <CG.A.7> continued

School year	Elementa secondary	•	Elementary school classroom	Secondary school classroom	seconda	ntary and ary school teachers <sup>1, 2</sup>	Average	e annual sal	lary (current	dollars)
	Instructional staff	Classroom teachers <sup>1, 2</sup>	teachers <sup>2</sup>	teachers <sup>2</sup>	Males	Females	All Instructional staff <sup>3</sup>	All classroom teachers <sup>4</sup>	Elementary school classroom teachers	Secondary school classroom teachers
Units	thousands	thousands	thousands	thousands	thousands	thousands	current dollars	current dollars	current dollars	current dollars
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1892-93		383	(NA)	(NA)	122	261	(NA)			
1893-94		389	(NA)	(NA)	125	264	(NA)			
1894-95		398	(NA)	(NA)	130	268	286			
1895-96		400	(NA)	(NA)	130	270	(NA)			
1896-97		405	(NA)	(NA)	131	274	(NA)			
1897-98		411	(NA)	(NA)	132	279	(NA)			
1898-99		414	(NA)	(NA)	131	283	(NA)			
1899-1900		423	403	20	127	296	325			
1900-01		432	(NA)	(NA)	126	306	(NA)			
1901-02		442	(NA)	(NA)	121	321	(NA)			
1902-03		449	(NA)	(NA)	117	332	(NA)			
1903-04		455	(NA)	(NA)	114	341	(NA)			
1904-05		460	(NA)	(NA)	111	350	386			
1905-06		466	(NA)	(NA)	109	357	(NA)			
1906-07		481	(NA)	(NA)	104	377	(NA)			
1907-08		495	(NA)	(NA)	104	391	(NA)			
1908-09		506	(NA)	(NA)	108	398	(NA)			
1909-10		523	482	42	110	413	485			
1910-11		534	(NA)	(NA)	110	423	466			
1911-12		547	(NA)	(NA)	115	433	492			
1912-13		565	(NA)	(NA)	113	452	512			
1913-14		580	(NA)	(NA)	115	465	525			
1914-15		604	(NA)	(NA)	118	486	543			
1915-16		622	(NA)	(NA)	123	499	563			

# <CG.A.7> continued

School year	Elementa secondary		Elementary Secondary Elementary and school school secondary school classroom classroom teachers <sup>1, 2</sup>		Averag	Average annual salary (current dollars)				
	Instructional staff	Classroom teachers <sup>1, 2</sup>	teachers <sup>2</sup>	teachers <sup>2</sup>	Males	Females	All Instructional staff <sup>3</sup>	All classroom teachers <sup>4</sup>	Elementary school classroom teachers	Secondary school classroom teachers
Units	thousands	thousands	thousands	thousands	Thousands	thousands	current dollars	Current dollars	current dollars	current dollars
HS no.	H523	H526 <sup>2</sup>	new	New	H527 <sup>2</sup>	H528 <sup>2</sup>	H524 <sup>3</sup>	New	new	new
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1917-18		651	562	84	105	546	635			
1919-20	700	680	576	102	96	584	871			
1921-22	756	723	593	130	118	605	1,166			
1923-24	787	761	617	144	129	633	1,227			
1925-26	850	814	645	170	139	675	1,277			
1927-28	868	832	643	189 <sup>5</sup>	138	694	1,364			
1929-30	892	854	641	213 <sup>5</sup>	142	712	1,420			
1931-32	901	872	640	231	154	718	1,417			
1933-34	880	847	619	228	162	685	1,227			
1935-36	906	871	603	268	179	692	1,283			
1937-38	919	877	595	282 <sup>5</sup>	185	692	1,374			
1939-40	912	875	575	300 <sup>5</sup>	195	681	1,441			
1941-42	898	859	559	300 <sup>5</sup>	183	676	1,507			
1943-44	865	828	539	289	127	701	1,728			
1945-46	867	831	542	289	138	693	1,995			
1947-48	907	861	555	306	162	699	2,639			
1949-50	962	914	590	324	195	719	3,010			
1951-52	1,012	963	620	343	235	728	3,450			
1953-54	1,098	1,032	658	375	254	779	3,825			
1955-56	1,213	1,141	733	408	299	850	4,156			
1956-57	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1957-58	1,333	1,238	(NA)	(NA)	332	906	4,702			
1958-59	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			

# <CG.A.7> continued

School	Elementary and		Elementary	Secondary	Elementary and		Average annual salary (current dollars)						
year	secondary	•	school	school		ry school	, words	o armaar oar	iary (carroint	aonaro,			
, , , ,		0000.0	classroom	classroom	classroom	teachers <sup>1, 2</sup>							
	Instructional	Classroom	teachers <sup>2</sup>	teachers <sup>2</sup>	Males	Females	All	All	Elementary	Secondary			
	staff	teachers1, 2					Instructional	classroom	school	school			
							staff <sup>3</sup>	teachers4	classroom	classroom			
									teachers	teachers			
Units	thousands	Thousands	thousands	thousands	thousands	thousands	current	current	current	current			
	(4)	(2)	(8)	(4)	(=)	(0)	dollars	dollars	dollars	dollars			
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1959-60*	1,464	1,355	(NA)	(NA)	393	962	5,174	4,995	4,815	5,276			
1960-61	(NA)	1,408	858	550	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1961-62	1,588	1,458	(NA)	(NA)	451	1,053	5,700	5,515	5,340	5,775			
1962-63	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1963-64	1,717	1,568	(NA)	(NA)	488	1,080	6,240	5,995	5,805	6,266			
1964-65	(NA)	1,648	940	708	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1965-66	1,885	1,711	965	746	544	1,167	6,935	6,485	6,279	6,761			
1966-67	(NA)	1,789	1,006	783	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1967-68	2,071	1,864	1,040	815	584	1,280	7,630	7,423	7,208	7,692			
1968-69	(NA)	(NA)	1,076	860	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			
1969-70	2,253	2,023	1,109	908	690	1,333	9047	8,626	8,412	8,891			
1970-71	(NA)	2,059	1,130	929	676 <sup>6</sup>	1,383 <sup>6</sup>	9698	9,268	9,021	9,568			
1971-72	2,322	2,063	1,111	952	688 <sup>6</sup>	1,382 <sup>6</sup>	10,213	9,705	9,424	10,031			
1972-73	(NA)	2,106	1,142	964	703 <sup>6</sup>	1,403 <sup>6</sup>	10,634	10,174	9,893	10,507			
1973-74	2,338	2,136	1,151	985	715 <sup>6</sup>	1,421 <sup>6</sup>	11,254	10,770	10,507	11,077			
1974-75	(NA)	2,165	1,166	998	727 <sup>6</sup>	1,438 <sup>6</sup>	12,167	11,641	11,334	12,000			
1975-76	2,337	2198	1,181	1017	742 <sup>6</sup>	1,456 <sup>6</sup>	13,124	12,600	12,280	12,937			
1976-77	(NA)	2,189	1,168	1021	734 <sup>6</sup>	1,455 <sup>6</sup>	13,840	13,354	12,989	13,776			
1977-78	(NA)	2,209	1,185	1024	742 <sup>6</sup>	1,467 <sup>6</sup>	14,698	14,198	13,845	14,602			
1978-79	2,297	2,207	1,191	1016	735 <sup>6</sup>	1,472 <sup>6</sup>	15,764	15,032	14,681	15,450			
1979-80	(NA)	2,185	1,191	994	743 <sup>6</sup>	1,442 <sup>6</sup>	16,715	15,970	15,569	16,459			
1980-81	2,860	2,184	1,189	995	708 <sup>6</sup>	1,476 <sup>6</sup>	18,404	17,644	17,230	18,142			
1981-82	(NA)	2,127	1,183	945	679 <sup>6</sup>	1,439 <sup>6</sup>	20,327	19,274	18,853	19,805			

<CG.A.7> continued

<cg.a.></cg.a.> co	onunueu									
School	Elementa	•	Elementary	Secondary		tary and	Average	e annual sal	ary (current	dollars)
year	secondary	schools	school	school	seconda	ry school				
			classroom	classroom		teachers1, 2				
	Instructional	Classroom	teachers <sup>2</sup>	teachers <sup>2</sup>	Males	Females	All	All	Elementary	Secondary
	staff	teachers1, 2					Instructional	classroom	school	school
							staff <sup>3</sup>	teachers*	classroom	classroom
									teachers	teachers
Units	thousands	thousands	thousands	thousands	thousands	thousands	current	current	current	current
	1,1500	1.150.02			115052	1.5002	dollars	dollars	dollars	dollars
HS no.	H523	H526 <sup>2</sup>	new	new	H527 <sup>2</sup>	H528 <sup>2</sup>	H524 <sup>3</sup>	new	new	new
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1982-83	(NA)	2,133	1,182	951	679 <sup>6</sup>	1,454 <sup>6</sup>	21,641	20,695	20,227	21,291
1983-84	(NA)	2,139	1,186	953	679 <sup>6</sup>	1,460 <sup>6</sup>	23,005	21,935	21,487	22,554
1984-85	2,692 <sup>7</sup>	2,168	1,208	960	679 <sup>6</sup>	1,489 <sup>6</sup>	24,666	23,600	23,200	24,187
1985-86	2,756 <sup>7</sup>	2,206	1,237	969	669 <sup>6</sup>	1,537 <sup>6</sup>	26,362	25,199	24,718	25,846
1986-87	2,822	2,244	1,271	973	674 <sup>6</sup>	1,570 <sup>6</sup>	27,706	26,569	26,057	27,244
1987-88	2,860 <sup>7</sup>	2,279	1,307	973	665 <sup>6</sup>	1,614 <sup>6</sup>	29,219	28,034	27,519	28,798
1988-89	2,931 <sup>7</sup>	2,323	1,353	970	659 <sup>6</sup>	1,664 <sup>6</sup>	30,850	29,564	29,022	30,218
1989-90	2,986 <sup>7</sup>	2,357	1,387	970	658 <sup>6</sup>	1,699 <sup>6</sup>	32,638	31,367	30,832	32,049
1990-91	3,051 <sup>7</sup>	2,398	1,426	972	669 <sup>6</sup>	1,728 <sup>6</sup>	34,401	33,084	32,490	33,896
1991-92	3,104 <sup>7</sup>	2,432	1,459	973	679	1,753	35,556	34,063	33,479	34,827
1992-93	3,140 <sup>7</sup>	2,459	1,486	972	(NA)	(NA)	36,460	35,029	34,350	35,880
1993-94	3,209 <sup>7</sup>	2,504	1,515	989	679	1,825	37,441	35,733	35,233	36,555
1994-95	3,285 <sup>7</sup>	2,552	1,510	1,041	(NA)	(NA)	38,441	36,609	36,084	37,404
1995-96	(F)	2,586	1,529	1,058	(NA)	(NA)	39,451	37,560	36,976	38,423
1996-97	(F)	2,679	1,576	1,103	(NA)	(NA)	40,580	38,509	37,969	39,310

Sources: <CG.A.7.1>, 1919-20 to 1969-70, U.S. Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C.: U.S. G.P.O., 1975), series H 523; 1970-71 to 1994-95, Department of Education, *Digest of Education Statistics*, annual issues (Washington, D.C.: U.S. G.P.O.); see, for example, 1996 issue, table 81, column 8. <CG.A.7.3>, and <CG.A.7.4>, 1870-1954, Abbott L. Ferris, *Indicators of Trends in American Education* (N.Y.: Russell Sage Foundation, 1969), series B-5 and B-6; subsequent years from *Digest* annual issues; see, for example, 1996 issue, table 63, columns 5, 6, and 7. <CG.A.7.2>, <CG.A.7.5>, <CG.A.7.6>, U.S. Department of Education, *120 Years of American Education: A Statistical Portrait* (Washington, D.C.: U.S. G.P.O., 1993), table 14. The series rely on Ferris, *Indicators*, series B-1, B-2, and B-3; U.S. Office of Education, *Biennial Survey of Education in the United States*; and the *Digest*, which has been used for updates since 1991. See, especially, *Digest of Education Statistics 1996*, tables 4 and 63. On rare occasions, the Ferris data have been used in place of those in *120 Years*. The sex breakdown is continued in the *Digest* sporadically after 1990. <CG.A.7.7>, *120 Years*, table 14, which is from *Historical Statistics* (1975) to 1968 and from the *Digest* after 1968. Updated data are from *Digest of Education Statistics 1997*, table 81. <CG.A.7.8>, <CG.A.7.9>, and <CG.A.7.10>, *Digest 1997*, table 77.

The instructional staff category includes all public elementary and secondary day-school positions that are concerned with teaching or its improvement, including consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. The category excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

Classroom teachers are defined as staff members who instruct pupils in self-contained classes or courses, or in classroom situations. The Schools and Staffing Survey (SASS), first conducted in 1987-88, provides a more precise description of a teacher. For the purposes of SASS, a teacher is any full- or part-time instructor whose primary assignment is to teach in any of the K-12 grades. Beginning in 1993-94, anyone in a school who taught grades K-12 but whose primary assignment was something else (e.g., a principal) was also defined as a teacher. The following individuals were not considered teachers: short-term substitutes, student teachers, non-teaching specialists (such as guidance counselors, librarians, nurses, and psychologists), administrators, teacher aides, or other professional or support staff. SASS classified teachers as elementary or secondary on the basis of the grades they taught rather than the schools in which they taught. An elementary school teacher was one who, when asked for the grades taught, stated below ninth or ungraded and designated an elementary school teacher. A secondary school teacher was one who, when asked for the grades taught, stated ninth or higher, seventh and higher with no primary assignments at the elementary level, or ungraded and designated as a secondary school teacher. Previous definitions of elementary and secondary teachers are less precise. In most cases, data have been revised to account for teachers in secondary schools (e.g., junior high schools for grades 7 to 9).

- \1: For select years prior to 1951-52, includes a small number of librarians and other non-supervisory instructional staff. May not always exactly equal the sum of elementary and secondary teachers, <CG.A.7.3> and <CG.A.7.4>, nor the sum of male and female teachers, <CG.A.7.5> and <CG.A.7.6>.
- \2: Prior to 1938, number of different persons employed rather than number of positions.
- \3: Prior to 1919-20, computed for teaching positions only; beginning 1919-20, also includes supervisors and principals. Data for 1980-81 and subsequent years are estimates from the National Education Association.
- \4: Data for 1970-71 and subsequent years are estimated by the National Education Association.
- \5: Includes teachers in junior high schools.
- \6: Estimated figures.
- \7: Data not comparable with figures prior to 1984.

<CG.A.9> Public school enrollment by subject in grades nine to twelve: 1889-90 to  $1981-82^1$ 

Subject	1889- 90 <sup>2</sup>	1899- 1900 <sup>2</sup>	1909- 10	1914- 15	1921- 22	1927- 28	1933- 34	1948- 49	1954- 55 <sup>3</sup>	1958- 59 <sup>3</sup>	1960- 61	1962- 63 <sup>3</sup>	1964- 65	1972- 73 <sup>3</sup>	1981- 82
Units	%	1900 %	%	%	<u> </u>	%	% %	49 %	%	% %	%	%	%	/3 %	%
col no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	( ' /	(-/	(0)			and biolo	. ,		(9)	(10)	( , , ,	(12)	(10)	( , , ,	(10)
Biology <sup>4</sup>	(NA)	(NA)	23.8	19.3	14.1	15.9	16.1	18.6	20.0	20.8	21.7	24.0	23.2	18.6	24.1
General science	(NA)	(NA)	(NA)	(NA)	18.3	17.5	17.8	20.8	(NA)	19.6	22.2	17.6	18.7	11.3	23
Chemistry	10.1	7.7	6.9	7.4	7.4	7.1	7.6	7.6	7.5	8.1	9.1	8.3	9.3	8.7	9.8
Physiology	(NA)	27.4	15.3	9.5	5.2	2.7	1.8	1.0	(NA)	(NA)	0.8	(NA)	(NA)	0.9	1.2
Physics	22.2	19.0	14.6	14.2	8.9	6.9	6.3	5.4	4.7	4.7	4.9	3.8	4.5	2.9	1.0
Earth science <sup>5</sup>	(NA)	29.8	21.0	15.3	4.5	2.8	1.8	0.4	(NA)	(NA)	0.9	(NA)	(NA)	3.8	0.7
		•	•			Mathem	atics		•			•			
Algebra	45.4	56.3	56.9	48.8	40.2	35.2	30.4	26.8	25.3	29.9	28.6	30.4	28.5	19.7	29.5
General mathematics <sup>6</sup>	(NA)	(NA)	(NA)	(NA)	12.4	7.9	7.4	13.1	12.3	12.7	17.4	11.7	15.4	13.8	21.7
Geometry	21.3	27.4	30.9	26.6	22.7	19.8	17.1	12.8	12.5	13.4	13.8	14.7	13.9	11.6	11.4
Trigonometry	(NA)	1.9	1.9	1.5	1.5	1.3	1.3	2.0	2.6	2.7	3.0	2.0	2.0	6.2	3.5
					Langu	uages ar	nd literat	ure							
English <sup>7</sup>	(NA)	42.1	57.1	55.8	78.6	93.1	90.5	92.9	(NA)	(NA)	94.6	(NA)	(NA)	89.8	86.5
Rhetoric <sup>7</sup>	(NA)	38.5	57.1	58.4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Spanish	(NA)	(NA)	0.7	2.4	11.3	9.4	6.2	8.2	(NA)	(NA)	9.8	(NA)	14.5	12.3	12.3
French	5.8	7.8	9.9	8.8	15.5	14.0	10.9	4.7	(NA)	(NA)	8.0	(NA)	12.4	7.6	6.6
German	10.5	14.3	23.7	24.4	0.7	1.8	2.4	8.0	(NA)	(NA)	1.7	(NA)	2.7	3.1	2.1
Latin	34.7	50.6	49.1	37.3	27.5	22.0	16.0	7.8	(NA)	(NA)	7.8	(NA)	(NA)	1.5	1.1
Other foreign languages <sup>8</sup>	3.1	2.9	8.0	0.3	0.1	0.1	0.2	0.3	(NA)	(NA)	0.3	(NA)	(NA)	0.3	0.3
History and social sciences															
History <sup>9</sup>	27.31	38.16	55.0	50.5	50.7	46.5	42.7	42.7	(NA)	(NA)	44.4	(NA)	(NA)	46.3	44.7
Civics and government <sup>10</sup>	(NA)	21.66	15.6	15.7	19.3	21.1	19.8	13.2	(NA)	(NA)	23.0	(NA)	(NA)	15.2	18.7
Other social sciences <sup>11</sup>	(NA)	2.38	1.0	1.2	8.1	8.8	7.7	15.3	(NA)	(NA)	16.0	(NA)	(NA)	20.0	29.8
	1	T	T	•	Ī		Ī	•	T			T	Ī	Ī	
All academic subjects	(NA)	(NA)	417.2	378.2	332.8	317.9	287.9	275.8	(NA)	(NA)	306.3	(NA)	(NA)	275.0	303.9

<CG.A.9> continued

Subject	1889-	1899-	1909-	1914-	1921-	1927-	1933-	1948-	1954-	1958-	1960-	1962-	1964-	1972-	1981-
	90 <sup>2</sup>	1900 <sup>2</sup>	10	15	22	28	34	49	55 <sup>3</sup>	59 <sup>3</sup>	61	63 <sup>3</sup>	65	73 <sup>3</sup>	82
Units	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
col no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Industrial and commercial subjects															
Typewriting	(NA)	(NA)	(NA)	(NA)	13.1	15.2	16.7	22.5	(NA)	(NA)	23.2	(NA)	(NA)	20.3	21
Industrial subjects <sup>12</sup>	(NA)	(NA)	(NA)	11.2	13.7	13.5	21.0	26.6	(NA)	(NA)	28.0	(NA)	(NA)	3.7	14.8
Bookkeeping	(NA)	(NA)	(NA)	3.4	12.6	10.7	9.9	8.7	(NA)	(NA)	7.7	(NA)	(NA)	5.8	3.2
Shorthand	(NA)	(NA)	(NA)	(NA)	8.9	8.7	9.0	7.8	(NA)	(NA)	6.7	(NA)	(NA)	4.6	3.1
Other business subjects <sup>13</sup>	(NA)	(NA)	(NA)	(NA)	5.4	13.7	16.9	14.5	(NA)	(NA)	10.0	(NA)	(NA)	9.9	12.3
				Othe	subject	s, gene	rally non	-acaden	nic						
Physical education	(NA)	(NA)	(NA)	(NA)	5.7	15.0	50.7	69.4	(NA)	(NA)	73.8	(NA)	(NA)	56.9	59
Art <sup>12</sup>	(NA)	(NA)	(NA)	22.9	14.7	11.7	8.7	9.0	(NA)	(NA)	19.3	(NA)	(NA)	17.9	24.2
Home economics	(NA)	(NA)	3.8	12.9	14.3	16.5	16.7	24.2	(NA)	(NA)	23.1	(NA)	(NA)	20.4	23.9
Music	(NA)	(NA)	(NA)	31.5	25.4	26.0	25.5	30.1	(NA)	(NA)	28.0	(NA)	(NA)	25.1	21.6
Agriculture	(NA)	(NA)	4.7	7.2	5.1	3.7	3.6	6.7	(NA)	(NA)	6.2	(NA)	(NA)	2.7	3.3
Miscellaneous <sup>14</sup>	(NA)	(NA)	(NA)	(NA)	7.0	8.4	9.5	6.5	(NA)	(NA)	7.2	(NA)	(NA)	30.0	20.1
All subjects	(NA)	(NA)	425.7	467.2	458.7	461.0	475.9	501.8	(NA)	(NA)	539.4	(NA)	(NA)	472.3	510.4

Sources: <CG.A.9.1>, Annual Report of the Commissioner of Education, 1890, p. 1392; <CG.A.9.2>, Annual Report of the Commissioner of Education, 1900, tables 10 and 11, pp. 2138-39; <CG.A.9.3>, Annual Report of the Commissioner of Education, 1910, tables 138, 139 and 140, pp. 1182-84; <CG.A.9.4>, Annual Report of the Commissioner of Education, 1916, tables 34, 47, 48, 49 and 50, p. 487 and p. 500; <CG.A.9.5>, U.S. Office of Education, Biennial Survey of Education in the United States, 1920-22, table 34, p. 599; <CG.A.9.6>, U.S. Office of Education, Biennial Survey of Education in the United States, 1926-28, tables 59 and 61, pp. 1057-60; <CG.A.9.7>, U.S. Office of Education, Biennial Survey of Education in the United States, 1936-38, table 24, p. 24; <CG.A.9.8>, U.S. Office of Education, Biennial Survey of Education in the United States, 1948-50, tables 5 and 7, chap. 5; <CG.A.9.9>, <CG.A.9.10>, <CG.A.9.12>, and <CG.A.9.13>, U.S. Department of Education, 120 Years of American Education: A Statistical Portrait (Washington, D.C.: U.S. G.P.O., 1993), table 16; <CG.A.9.11>, U.S. Department of Health, Education and Welfare, Office of Education, Subject Offerings and Enrollments in Public Secondary Schools, 1965, table 7; <CG.A.9.14> and <CG.A.9.15>, U.S. Department of Education, National Center for Education Statistics, A Trend Study of High School Offerings and Enrollments: 1972-73 and 1981-82 (Washington, D.C.: U.S. G.P.O., 1984), tables 1 and 2.

All series are based on surveys of schools requested by the U.S. Commissioner of Education or the Department (Office) of Education. However, the collection of these data changed over the years. For <CG.A.9.3> through <CG.A.9.7>, the percentages are based on the number of pupils enrolled in the last four years of all schools that returned usable questionnaires. For subsequent years, the figures are based on the total number of pupils enrolled in the last four years of all schools. Thus, starting with <CG.A.9.8> schools were sampled and the results were then weighted to approximate the percentages taking specific subjects in all public secondary schools.

The caution noted in the *Biennial*, 1948-50, p. 5, is worth repeating: "Obviously special caution should be used in drawing conclusions ... Because subjects are represented ... only as they have from time to time been judged important in the number of their enrollments, many desirable details are missing. It is possible to do little more than trace the broad outlines of most changes which have occurred. Percentage enrollments in the different investigations reported in the historical table are not precisely comparable. Beginning with 1910 and until the present investigation, the percentage of pupils in each subject is based upon the number of pupils in the schools reporting subject enrollments." By implication, then, the percentages for <CG.A.9.1> and <CG.A.9.2> are based on all students in grades nine through twelve. These two series may, therefore, seriously understate the percentages taking various courses of study because the denominator may include those in schools responding incompletely or not at all.

In all years, the percentages are intended to give the number of pupils, in grades nine to twelve, taking specific courses of study during the school year divided by the total number of pupils in those grades. Information was not given concerning whether the subjects listed were semester or full-year courses. Some were clearly full-year courses, others were probably semester courses, yet others may have been half-semester in length. If all courses of study were full-year the "all subjects" totals, for <CG.A.9.3> to <CG.A.9.15> (excluding the four incomplete years), ranging from about 450 and 550, imply that pupils in grades nine to twelve were taking about five full-year courses each year.

Prior versions of this table (see, for example, 120 Years, table 16) aggregated various subjects and omitted others. The reasons are given in the source for the revised data (Biennial Survey, 1948-50): "when necessary, the subjects reported in previous surveys were analyzed, and appropriate components were either recombined, separately listed, or eliminated (with corresponding changes in the number and percentage enrolled) in a manner to yield as close comparability as possible with the data in the current (1948-49) survey." In constructing this table, the original sources were used to obtain greater detail and more accurately reflect changes in curriculum over time. However, there are cases in which the procedure will overstate the number of full-year courses taken. See \7 regarding English. With regard to history, see \9. By adding together various other history courses, the percentage taking history may be overstated if students took history courses covering English history and modern history, for example. Previous versions of this table aggregated only U.S. history and English history to form the history group.

Subjects surveyed were intended to include only those for which secondary school credit was given and to exclude extracurricular activities. The large increase in the percentage taking physical education between 1927-28 and 1933-34 may represent a change in the category rather than an increase in the activity.

- \1: Percentages may not add up to totals because of rounding. Subjects in each group are in descending order relative to <CG.A.9.15>.
- \2: See series note concerning undercounts.
- \3: Incomplete listing of subjects in original source.
- \4: Includes botany and zoology.
- \5: For <CG.A.9.1> to <CG.A.9.7>, physical geography, astronomy, and geology were reported separately, but subsequently were combined under the heading of earth science. Earth science for <CG.A.9.14> and <CG.A.9.15> also includes geology and astronomy. The subject geography, which appears after 1948, is included in "other social sciences."
- \6: Includes arithmetic, business arithmetic, and general mathematics, not all of which are listed in each year. \7: For <CG.A.9.2> to <CG.A.9.4>, enrollments in English (termed English literature) and rhetoric were listed separately. In 1909-10 and 1914-15, the combined enrollments in these two subjects was 114 percent of the total enrollment and many students were probably taking the two subjects as a part of one course. In 1922, the U.S. Office of Education attempted to collect enrollments in the various English subjects, but it became necessary to combine them all under the heading "English." The Office of Education reported that, in 1921-22, 78.6 percent of the pupils in schools reporting enrollment by subject (excluding duplicates) were taking one or more English subjects. The implication, therefore, is that about half of the students previously listed as taking both English literature and rhetoric were taking them as part of the same course. English literature and rhetoric enrollments are not available for <CG.A.9.1>.
- \8: Includes Greek, Russian, and Italian.
- \9: Includes U.S., English, world, ancient, medieval, and modern history.
- \10: Includes "problems of democracy."
- \11: Includes geography, sociology, economics, consumer education, and psychology.
- \12: Original sources for <CG.A.9.4> to <CG.A.9.7> give higher numbers for art and lower numbers for industrial subjects than in the revised estimates in *Biennial Survey*, 1948-50. It is likely that the subject of draftsmanship was shifted from art to industrial subjects.
- \13: Includes business English, business law, commercial geography, commercial history, penmanship, office practice, elementary business training, retailing, cooperative store training, cooperative office training, and salesmanship and advertising. Some of the subjects contained enrollments throughout the years, although some disappeared. The group as a whole, however, appears to reflect an interest in business and commercial subjects that was steady, but subject to compositional change.
- \14: Includes teacher training, journalism, speech and public speaking, hygiene and sanitation, and safety and driver's education.

<CG.A.11> High school graduates, by sex and control of institution: 1870 to 1997

School		High	school grad		Population	Public and private	
year	Total <sup>1</sup>	Se		Con	trol <sup>3</sup>	17 years	high school
ending		Male	Female	Public	Private	old	graduates per 100
11-74-	41	41 1 -	41	41	41	41	17-year olds <sup>4</sup>
					thousands		percentage
HS no.	H598	H600	H601	new	new	new	H599
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1870	16	7	9			815	2
1871	17	7	9			(NA)	(NA)
1872	17	8	10			(NA)	(NA)
1873	18	8	10			(NA)	(NA)
1874	19	8	11			(NA)	(NA)
1875	20	9	11			(NA)	(NA)
1876	20	9	11			(NA)	(NA)
1877	21	9	11			(NA)	(NA)
1878	22	10	12			(NA)	(NA)
1879	23	10	13			(NA)	(NA)
1880	24	11	13			946	3
1881	25	11	14			(NA)	(NA)
1882	27	12	15			(NA)	(NA)
1883	28	13	16			(NA)	(NA)
1884	31	14	17			(NA)	(NA)
1885	32	14	18			(NA)	(NA)
1886	33	15	18			(NA)	(NA)
1887	32	14	18			(NA)	(NA)
1888	33	14	19			(NA)	(NA)
1889	39	16	22			(NA)	(NA)
1890	44	19	25			1,259	3
1891	48	20	28			(NA)	(NA)
1892	53	21	32			(NA)	(NA)
1893	59	24	35			(NA)	(NA)
1894	65	27	39			(NA)	(NA)
1895	72	29	43			(NA)	(NA)
1896	76	31	45			(NA)	(NA)
1897	80	32	47			(NA)	(NA)
1898	84	34	50			(NA)	(NA)
1899	90	36	53			(NA)	(NA)
1900	95	38	57			1,489	6
1901	97	37	60			(NA)	(NA)
1902	99	39	61			(NA)	(NA)
1903	105	41	64			(NA)	(NA)
1904	112	44	68			(NA)	(NA)
1905	119	47	72			(NA)	(NA)
1906	126	50	76			(NA)	(NA)
1907	127	51	76			(NA)	(NA)
1908	129	52	77			(NA)	(NA)
1909	142	57	84			(NA)	(NA)

<CG.A.11> continued

School	11> continued High school graduates Population Public										
year	Total <sup>1</sup>	Se		Con	trol <sup>3</sup>	17 years	Public and private high school				
ending	TOlai	Male	Female	Public	Private	old	graduates per 100				
		Male	гентаве	Public	Filvale		17-year olds <sup>4</sup>				
Units				thousands	thousands	thousands	percentage				
HS no.	H598	H600	H601	new	new	new	H599				
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)				
1910	156	64	93	123	33	1,814 <sup>5</sup>	9				
1911	168	69	99	133	35	1,823	9				
1912	181	74	106	(NA)	(NA)	1,832	10				
1913	200	82	117	163	37	1,842	11				
1914	219	90	129	180	39	1,851	12				
1915	240	99	140	(NA)	(NA)	1,860	13				
1916	259	108	151	220	39	1,870	14				
1917	272	110	162	(NA)	(NA)	1,879	14				
1918	285	112	173	245	40	1,889	15				
1919	298	118	180	(NA)	(NA)	1,898	16				
1920	311	124	188	268	43	1,908 <sup>5</sup>	16				
1921	334	137	198	(NA)	(NA)	1,944	17				
1922	357	150	207	313	44	1,980	18				
1923	426	181	244	(NA)	(NA)	2,017	21				
1924	494	213	281	437	57	2,055	24				
1925	528	230	298	(NA)	(NA)	2,093	25				
1926	561	246	315	495	66	2,132	26				
1927	579	256	323	(NA)	(NA)	2,172	27				
1928	597	266	330	533	64	2,213	27				
1929	632	283	349	(NA)	(NA)	2,254	28				
1930	667	300	367	599	68	2,296	29				
1931	747	337	409	(NA)	(NA)	2,327	32				
1932	827	375	452	747	80	2,330	35				
1933	871	403	468	(NA)	(NA)	2,335	37				
1934	915	432	483	843	72	2,334	39				
1935	965	459	506	(NA)	(NA)	2,348	41				
1936	1,015	486	530	941	74	2,377	43				
1937	1,068	505	563	(NA)	(NA)	2,416	44				
1938	1,120	524	596	1,039	81	2,456	46				
1940	1,221	579	643	1,136	85	2,403	51				
1942	1,242	577	666	(NA)	(NA)	2,421	51				
1944	1,019	424	595	(NA)	(NA)	2,386	43				
1946	1,080	467	613	(NA)	(NA)	2,278	47				
1948	1,190	563	627	1,073	117	2,261	53				
1950	1,200	571	629	1,063	136	2,034	59				
1952	1,197	569	627	1,056	141	2,086	57				
1954	1,276	613	664	1,129	147	2,135	60				
1956	1,415	680	735	1,252	163	2,242	63				
1957	1,434	690	744	1,270	164	2,272	63				

<CG.A.11> continued

School	Secontinued High school graduates Population   Public and private										
year	Total <sup>1</sup>		ex <sup>2</sup>		17 years	high school					
ending	Total	Male	Female		Control <sup>3</sup> Public Private		graduates per 100				
		IVIAIC	i ciliale	rubiic	riivaie		17-year olds <sup>4</sup>				
Units	thousands		thousands	thousands	thousands	thousands	percentage				
HS no.	H598	H600	H601	new	new	new	H599				
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)				
1958	1,506	725	781	1,332	174	2,325	65				
1959	1,627	784	843	1,435	192	2,458	66				
1960	1,858	895	963	1,627	231	2,672	70				
1961	1,964	955	1,009	1,725	239	2,892	68				
1962	1,918	938	980	1,678	240	2,768 <sup>6</sup>	69				
1963	1,943	956	987	1,710	233	2,740 <sup>6</sup>	71 <sup>6</sup>				
1964	2,283	1,120	1,163	2,008	275	2,978 <sup>6</sup>	77 <sup>6</sup>				
1965	2,658	1,311	1,347	2,360	298	3,684 <sup>6</sup>	72 <sup>6</sup>				
1966	2,665	1,323	1,342	2,367	298	3,489 <sup>6</sup>	76 <sup>6</sup>				
1967	2,672	1,328	1,344	2,374	298	3,500	76				
1968	2,695	1,338	1,357	2,395	300	3,532	76				
1969	2,822	1,399	1,423	2,522	300	3,659	77				
1970	2,889	1,430	1,459	2,589	300	3,757	77				
1971	2,937	1,454	1,483	2,638	300	3,872	76				
1972	3,001	1,487	1,514	2,700	302	3,973	76				
1973	3,036	1,500	1,536	2,729	306	4,049	75				
1974	3,073	1,512	1,561	2,763	310	4,132	74				
1975	3,133	1,542	1,591	2,823	310	4,256	74				
1976	3,148	1,552	1,596	2,837	311	4,272	74				
1977	3,152	1,548	1,604	2,837	315	4,272	74				
1978	3,127	1,531	1,596	2,825	302	4,286	73				
1979	3,101	1,517	1,584	2,801	300	4,327	72				
1980	3,043	1,491	1,552	2,748	295	4,262	71				
1981	3,020	1,483	1,537	2,725	295	4,212	72				
1982	2,995	1,471	1,524	2,705	290	4,134	72				
1983	2,888	1,437	1,451	2,598	290	3,962	73				
1984	2,767 <sup>7</sup>	1,313 <sup>7</sup>	1,454	2,495	272	3,784	73				
1985	2,677 <sup>7</sup>	1,291 <sup>7</sup>	1,386	2,414	263	3,699	72				
1986	2,643 <sup>7</sup>	1,263 <sup>7</sup>	1,380	2,383	260	3,670	72				
1987	2,694 <sup>7</sup>	1,301 <sup>7</sup>	1,393	2,429	265	3,754	72				
1988	2,773 <sup>7</sup>	1,384 <sup>7</sup>	1,389	2,500	273	3,849	72				
1989	2,727	1,343 <sup>7</sup>	1,384	2,459	268	3,842	71				
1990	2,586 <sup>7</sup>	1,285 <sup>7</sup>	1,302	2,320	266	3,574	72				
1991	2,503 <sup>7</sup>	1,257 <sup>7</sup>	1,254	2,235	268	3,417	73				
1992	2,482	(NA)	(NA)	2,226	256	3,381	73				
1993	2,490	(NA)	(NA)	2,233	257	3,433	73				
1994	2,479	(NA)	(NA)	2,221	258	3,442	72				
1995	2,531	(NA)	(NA)	2,274	257	3,571	71				
1996	2,557	(NA)	(NA)	2,293	264	3,629	70				
1997	2,623	(NA)	(NA)	2,358	265	3,762	70				

### Sources:

<CG.A.11.1>, 1870-1930, U.S. Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C.: U.S. G.P.O., 1975) series H 598, for which the original source is U.S. Office of Education, *Statistical Summary of Education, 1937-38*, table 15; 1931-1976, U.S. Department of Education, *120 Years of American Education: A Statistical Portrait* (Washington, D.C.: U.S. G.P.O., 1993), table 19, the underlying sources of which are: 1931-38, *Statistical Summary*, table 15; 1940-52, U.S. Office of Education, *Biennial Survey of Education in the United States*; 1954-70, *Projections of Educational Statistics*; and 1971-1976, U.S. Department of Education, *Digest of Education Statistics*, annual issues (Washington, D.C.: U.S. G.P.O.); 1977-1997, U.S. Department of Education, *Digest of Education Statistics* 1997 (Washington, D.C.: U.S. G.P.O., 1997), table 99. <CG.A.11.2>, and <CG.A.11.3>, 1870-1930, *Historical Statistics* (1975), series H 600 and H 601, for which the original source is U.S. Office of Education, *Statistical Summary of Education*, 1937-38, table 15; 1931-1976 and 1984-1991, 120 Years of American Education (1993), table 19 for which the original sources are the same as for <CG.A.11.1> to 1976; 1977-1983: *Digest of Education Statistics* 1997 (1997), table 99.

<CG.A.11.4> and <CG.A.11.5>, 1910-1940, for sources see discussion in Claudia Goldin, "America's Graduation from High School: The Evolution and Spread of Secondary Schooling in the Twentieth Century," *Journal of Economic History* 58 (June 1998), pp. 345-74; the public and private breakdown implicit in the Goldin data are applied to the total in <CG.A.11.1>. Goldin's estimates are derived from the same data as are the official estimates and differences between the official estimates of all high school graduates and those in Goldin are small (1910, 0.8%; 1920, 0.3%; 1930, 1.4%). Private secondary school data in Goldin include students in the preparatory departments of colleges and universities. 1948-1997, *Digest of Education Statistics* 1997 (1997), table 99.

<CG.A.11.6>, 1870-1997, *Digest of Education Statistics 1997* (1997), table 99, with the exceptions of 1910 and 1920 for which the data implicit in *Historical Statistics* (1975) series H 598 and H 599 are used. Data for the intercensal years from 1911 to 1929 are estimated using an exponential growth rate extrapolation procedure.

<CG.A.11.7> is the ratio of <CG.A.11.1> and <CG.A.11.6> multiplied by 100.

High school graduates include graduates from public and nonpublic schools and exclude persons granted equivalency certificates, such as the General Education Development credential (see <CG.A.12>). Individuals of any age receiving a high school diploma are included. The offical Department (Office) of Education data on the number of graduates differ from those in the contemporaneous publications of the Office of Education particularly prior to the mid-1930s when the series were substantially revised. There appears to be no extant documentation of the rationale for the revisions, but see Claudia Goldin, "America's Graduation from High School: The Evolution and Spread of Secondary Schooling in the Twentieth Century," *Journal of Economic History* 58 (June 1998): 345-74, for a method that produces estimates close to those of the Department (Office) of Education which are given here. The inference from Goldin's work is that the Department (Office) of Education revisions applied reasonable estimates of undercounts to schools reporting and added to the private school figures students exiting from the preparatory departments of colleges and universities.

- \1: Graduates do not include those receiving General Education Development (GED) credentials. For data on GED credentials issues, see <CG.A.12>.
- \2: The sum of males and females may not always equal the total because of rounding error and because different sources are used for the series after 1989. Graduation data by sex are not given in the *Digest* after 1983.
- \3: The sum of public and private may not always equal the total because of rounding error.
- \4: The division by the number of 17-year olds is customary and should not be taken to imply that graduates were 17-years old. The estimation of the number of 17-year olds and the fact that not all graduates were 17-years old, creates some problems for the year-to-year movement in the overall series. See notes 5 and 6.
- \5: The number of 17-year olds for 1910 and 1920 given in the U.S. population census is considerably lower than the number of 16 and 18-year olds. The data implicit in *Historical Statistics* (1975) series H 598 and H 599 appear to have averaged the numbers in the larger group of older teens. Those are the numbers given here.
- \6: The change in graduation rate from 1963 to 1966 appears to be a function of the number of 17-year olds rather than the number of graduates. The increase from 1964 to 1965 in the number of 17-year olds is the largest on record in the United States.
- \7: Data for 1984 to 1991 are estimates based on data published by the Bureau of Labor Statistics.

<CG.A.15> School enrollment of 5- to 19-year-olds per 100 persons, by sex and race: 1850 to 1994

	Both sexes				Male		Female				
Year	Total	White	African-	Total	White	African-	Total	White	African-		
			American			American			American		
			and other			and other			and other		
		•	races <sup>1</sup>		2/	races <sup>1</sup>		2.	races <sup>1</sup>		
Units	%	%	%	%	%	%	%	%	%		
HS no.	H433	H434	H435	H436	H437	H438	H439	H440	H441		
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
1850	47.2	56.2	1.8	49.6	59.0	2.0	44.8	53.3	1.8		
1860	50.6	59.6	1.9	52.6	62.0	1.9	48.5	57.2	1.8		
1870	48.4	54.4	9.9	49.8	56.0	9.6	46.9	52.7	10.0		
1880	57.8	62.0	33.8	59.2	63.5	34.1	56.5	60.5	33.5		
1890	54.3	57.9	32.9	54.7	58.5	31.8	53.8	57.2	33.9		
1900 <sup>2</sup>	50.5	53.6	31.1	50.1	53.4	29.4	50.9	53.9	32.8		
1910 <sup>2</sup>	59.2	61.3	44.8	59.1	61.4	43.1	59.4	61.3	46.6		
1920 <sup>2</sup>	64.3	65.7	53.5	64.1	65.6	52.5	64.5	65.8	54.5		
1930 <sup>2, 3</sup>	69.9	71.2	60.3	70.2	71.4	59.7	69.7	70.9	60.8		
1940	74.8	75.6	68.4	74.9	75.9	67.5	74.7	75.4	69.2		
1950	78.7	79.3	74.8	79.1	79.7	74.7	78.4	78.9	74.9		
1954	86.2	87.0	80.8	87.5	88.4	80.9	84.8	85.4	80.7		
1955	86.5	87.0	82.9	88.4	88.9	84.6	84.5	85.0	81.2		
1956	87.2	87.8	83.6	88.6	89.4	9.4 83.6 85.8		86.1	83.5		
1957	87.8	88.2	85.3	89.4	90.0	85.6	86.2	86.4	85.0		
1958	88.4	88.9	85.1	90.1	90.5	87.2	86.7	87.2	82.9		
1959	88.5	88.8	85.9	89.7	90.2	86.8	87.1	87.5	85.0		
1960*	88.6	89.0	86.1	90.0	90.6	86.6	87.1	87.3	85.7		
1961	88.5	88.9	86.3	90.2	90.5	87.7	86.9	87.2	84.9		
1962	89.1	89.6	86.3	90.8	91.3	87.6	87.4	87.8	85.0		
1963	89.6	89.8	88.0	91.1	91.5	88.7	88.0	88.1	87.3		
1964	89.6	89.8	88.4	91.1	91.4	89.2	88.1	88.2	87.6		
1965	89.6	89.8	88.5	91.0	91.2	89.8	88.3	88.5	87.2		
1966	89.7	89.9	88.5	91.2	91.5	89.9	88.2	88.4	87.2		
1967	90.5	90.8	88.6	91.9	92.2	89.8	89.0	89.3	87.4		
1968	90.8	91.0	89.4	92.2	92.5	90.5	89.3	89.5	88.4		
1969	90.9	91.1	89.5	92.1	92.5	90.0	89.5	89.7	88.9		
1970	90.6	90.8	89.4	91.6	91.9	89.6	89.6	89.7	89.1		
1971	90.9	90.9	90.8	91.9	92.0	91.3	89.9	89.8	90.3		
1972	90.0	90.0	90.1	91.0	91.0	90.9	89.0	89.0	89.3		
1973	89.3	89.4	88.9	90.3	90.4	90.1	88.2	88.3	87.7		
1974	89.4	89.2	90.1	90.1	89.9	90.9	88.6	88.5	89.3		
1975	89.9	89.8	90.4	90.7	90.6	91.1	89.1	89.0	89.6		
1976	89.6	89.4	90.8	90.4	90.1	91.9	88.9	88.7	89.6		
1977	89.6	89.3	91.1	90.3	89.9	91.9	89.0	88.8	90.2		
1978	89.2	89.0	90.6	89.8	89.5	91.6	88.6	88.4	89.7		
1979	89.0	88.8	90.2	89.7	89.4	91.5	88.3	88.1	88.8		
1980	89.1	88.9	90.4	89.5	89.3	90.4	88.8	88.4	90.4		
1981	89.6	89.4	90.5	90.0	89.8	91.4	89.2	89.1	89.7		

<CG.A.15> continued

		Both sexes	S		Male		Female			
Year	Total	White	African-	Total	White	African-	Total	White	African-	
			American			American			American	
			and other			and other			and other	
			races <sup>1</sup>			races <sup>1</sup>			races <sup>1</sup>	
Units	%	%	%	%	%	%	%	%	%	
HS no.	H433	H434	H435	H436	H437	H438	H439	H440	H441	
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1982	89.6	89.5	90.0	90.0	89.9	90.6	89.1	89.1	89.4	
1983	90.3	90.3	90.3	90.4	90.3	90.8	90.2	90.2	89.8	
1984	90.3	90.3	90.2	90.7	90.6	90.9	89.9	90.0	89.5	
1985	91.0	91.1	90.7	91.2	91.2	91.4	90.7	90.9	89.9	
1986	91.4	91.3	91.6	92.0	91.8	92.6	90.8	90.8	90.7	
1987	91.7	91.5	92.3	92.4	92.2	93.2	90.9	90.8	91.4	
1988	91.8	91.7	92.2	92.1	91.6	94.5	91.5	91.4	91.9	
1989	91.8	91.7	92.1	92.1	92.1	92.2	91.5	91.3	92.0	
1990	92.6	92.5	92.8	92.9	92.6	93.8	92.2	92.3	91.8	
1991	93.1	93.1	93.2	93.4	93.1	94.2	92.8	93.0	92.2	
1992	93.5	93.5	93.4	93.9	93.7	94.8	93.1	93.4	92.0	
1993	93.6	93.6	93.3	93.8	93.6	94.5	93.3	93.5	92.4	
1994	93.5	93.5	93.6	93.6	93.6	93.6	93.4	93.3	93.5	

Sources: <CG.A.15.1> to <CG.A.15.9>, 1850 to 1991, U.S. Department of Education, 120 Years of American Education: A Statistical Portrait (Washington, D.C.: U.S. G.P.O., 1993), table 2. The underlying sources are: U.S. Bureau of the Census, Fifteenth Census (1940) Reports, Population, vol. II; U.S. Bureau of the Census, Census of Population: 1950, vol. II, part 1; U.S. Bureau of the Census, Census of Population: 1960, PC(1)-1D; and Current Population Reports, series P-20, "School Enrollment: Social and Economic Characteristics of Students," various years, and Current Population Survey, survey data files. 1991 to 1994, Current Populations Reports, series P-20, nos. 474, 479, and 487.

Data for 1850 through 1950 are based on April 1 counts of population. Data for 1954 to 1994 are based on October counts.

For decennial census years, the statistics refer to the total population within the specified age group; figures from the Current Population Survey (CPS) refer to the civilian noninstitutional population. Persons not covered in the CPS (Armed Forces and institutional population) are known to have low enrollment rates.

In the U.S. population census for 1940 and 1950, and in the CPS, 1954 to 1991, enrollment was defined as enrollment in "regular" schools only – that is, schools where enrollment may lead toward an elementary or high school diploma, or to a college, university, or professional school degree. Such schools included public and private nursery schools, kindergartens, elementary and secondary schools, colleges, universities, and professional schools. Enrollment could be either full-time or part-time, day or night.

If a person was receiving regular instruction at home from a tutor and if the instruction was considered comparable to that of a regular school or college, the person was counted as enrolled. Enrollment in a correspondence course was counted only if the person received credit in the regular school system. Enrollments in business and trade schools at the postsecondary level were excluded if the coursework did not lead to a degree.

Children enrolled in kindergarten were included in the "regular" school enrollment figures in the Current Population Survey beginning in 1950; children enrolled in nursery school were included beginning in 1967. Children enrolled in kindergarten were not included in the "regular" school enrollment figures in the 1950 U.S. population census, however, they have been included here to make the data comparable with earlier years and with current practice. In censuses prior to 1950, no attempt was made to exclude children in kindergarten so that statistics for those years include various proportions attending kindergarten. Also, in censuses prior to 1940, the data were not restricted as to type of school or college the person was attending.

In addition to differences in definition of school enrollment and in population coverage, the enrollment data for different years may differ because of variations in the dates when the questions were asked and the time periods to which enrollment referred. Data from the Current Population Survey were obtained in October and refer to enrollment in the current school term. In 1940, 1950, and 1960, the censuses were taken as of April 1, but enrollment related to any time after March 1 in 1940 and any time after February 1 in 1950 and 1960. The corresponding questions in the censuses from 1850 to 1930 applied to a somewhat longer period: in 1850 to 1900, to the 12 months preceding the census date; and in 1910, 1920, and 1930, to the period between the preceding September 1 and the census date (April 15 in 1910, January 1 in 1920, and April 1 in 1930).

Information on school enrollment is also collected and published by the Department of Education. These data are obtained from reports of school surveys and censuses. They are, however, only roughly comparable with data collected by the Bureau of the Census from households, because of differences in definitions, time references, population coverage, and enumeration methods. It is almost always the case that the enrollment percentages in the household survey data exceed those in the school surveys for individuals of roughly comparable ages.

- \1: For 1971 to 1994, the category "African-American and other races" is calculated by subtracting whites from the total.
- \2: Enrollment rates are for 5- to 20-year-olds.
- \3: Revised to include Mexicans as white persons.

<CG.A.16> Unionization of teachers and instructional staff: NEA and AFT membership and union density measures, 1960 to 1997

Year		Educational ation (NEA)	American Federation of	(NEA, K-12 and AFT membership)/		on members	Fraction covered by collective bargaining agreements		
	Total	K-12 instructional	Teachers	all public school	Elementary	Secondary	Elementary	Secondary	
	membership	staff membership	(AFT), total	instructional staff	school teachers	school teachers		school	
		-	membership					teachers	
Units	number	number	thousands	fraction	fraction	fraction	fraction	fraction	
HS no.	new	new	new	new	new	new	new	new	
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1960	713,994		56						
1961	765,616		(NA)						
1962	812,497		58						
1963	859,505		(NA)						
1964	903,384		(NA)						
1965	943,581		(NA)						
1966	986,113		(NA)						
1967	1,028,456		(NA)						
1968	1,081,660		(NA)						
1969	1,014,275		(NA)						
1970	1,100,155		188						
1971	1,103,485		197						
1972	1,166,203		225						
1973	1,377,998		204						
1974	1,467,186		326		0.264	0.286			
1975	1,684,909		380		0.288	0.306			
1976	1,886,532		323		0.344	0.379			
1977	1,679,689		347		0.416	0.455			
1978	1,696,469		390		0.505	0.558			
1979	1,709,673		452		0.528	0.579			
1980	1,680,566		393		0.544	0.599			
1981	1,659,459		515		(NA)	(NA)			
1982	1,644,459		459		(NA)	(NA)			
1983	1,633,205	1,496,930	457		0.577	0.574	0.691	0.694	
1984	1,654,825	1,541,070	(NA)		0.568	0.575	0.672	0.689	
1985	1,688,057	1,496,993	470	0.556	0.566	0.580	0.667	0.676	

<CG.A.16> continued

Year		Educational	American	(NEA, K-12 and		on members	Fraction covered by collective		
	Association (NEA)		Federation of	AFT membership)/			bargaining agreements		
	Total K-12 instructional		Teachers (AFT), total	all public school	Elementary	Secondary	Elementary	Secondary	
	membership			instructional staff	school teachers	school teachers school teachers		school	
			membership					teachers	
Units	number	number	thousands	fraction	fraction	fraction	fraction	fraction	
HS no.	new	new	new	new	new	new	new	new	
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1986	1,799,144	(NA)	(NA)	(NA)	0.546	0.574	0.647	0.684	
1987	1,828,649	1,552,236	494	0.550	0.578	0.584	0.667	0.675	
1988	1,919,773	1,579,689	(NA)	0.552	0.564	0.603	0.661	0.693	
1989	1,992,917	1,765,862	544	0.602	0.554	0.588	0.658	0.673	
1990	2,057,286	1,814,669	(NA)	0.608	0.560	0.556	0.656	0.666	
1991	2,109,866	1,859,480	459	0.609	0.558	0.569	0.636	0.661	
1992	2,143,170	1,884,001	(NA)	0.607	0.540	0.571	0.622	0.667	
1993	2,171,682	1,906,694	574	0.607	0.582	0.571	0.660	0.659	
1994	2,205,661	1,935,642	(NA)	0.603	0.570	0.586	0.644	0.665	
1995	2,249,703	(NA)	613	(NA)	0.559	0.584	0.634	0.652	
1996	2,279,101	1,998,016	(NA)	(NA)	0.556	0.578	0.632	0.648	
1997	2,323,339	2,034,087	(F)	(NA)	0.570	0.561	0.645	0.634	

## Sources:

<CG.A.16.1> and <CG.A.16.2>, 1960 to 1997, NEA Handbook, [year] (Washington, D.C.: National Education Association), annual issues. <CG.A.16.3>, 1960 to 1983, Leo Troy and Neil Sheflin, U.S. Union Sourcebook: Membership, Finances, Structure, Directory (West Orange, NJ: Industrial Relations Data and Information Services, 1985); 1984 to 1995, Statistical Abstract of the United States [year] (Washington, D.C.: U.S. G.P.O.), various issues. <CG.A.16.4>, is equal to <CG.A.16.2> plus <CG.A.16.3> divided by <CG.A.7.1>. <CG.A.16.5> and <CG.A.16.6>, 1973 to 1980, Edward C. Kokkelenberg and Donna R. Sockell, "Union Membership in the United States, 1973-1981," Industrial and Labor Relations Review 28 (July 1985), p. 507. <CG.A.16.5> to <CG.A.16.8>, 1983 to 1997, Barry T. Hirsch and David A. Macpherson, Union Membership and Earnings Data Book: Compilations from the Current Population Survey (Washington, D.C.: Bureau of National Affairs), annual issues. Underlying source is Current Population Survey (CPS) Outgoing Rotation Group (ORG) Earnings Files, 1983 to 1997.

The National Education Association (NEA) has been in existence since 1857, when it was the National Teachers' Association, as a professional association of teachers and other instructional staff. As various localities and states granted formal bargaining rights to their public-sector workers in the early 1950s and states passed legislation for school bargaining (beginning with Wisconsin in 1959), local NEA chapters became the bargaining agents for teachers. Although some states still do not allow public-sector employees to bargain collectively, most states passed enabling legislation in the 1960s and 1970s (forty-one states had such legislation in 1975). The American Federation of Teachers (AFT), a union affiliated with the AFL-CIO since its founding in 1916, also has local chapters that are bargaining agents for teachers.

NEA membership data in <CG.A.16.1> include dues-paying members who are K-12 and higher-education teachers (including substitute teachers), other instructional staff, non-instructional staff, NEA staff, and post-secondary school students in training for educational positions. Members can be active, retired, or lifetime. NEA membership data in <CG.A.16.2> include only K-12 teachers and other instructional staff, active and lifetime members. Thus <CG.A.16.1> can exceed the total number of public-sector, K-12 active instructional staff. The NEA and AFT data do not, according to Troy and Sheflin, include Canadian members or private school teachers and instructional staff, but there may be a trivial number of private higher education teachers in the NEA membership data.

The CPS data include all wage and salary workers who listed their occupation as teacher (elementary or secondary school).

By "union density" is meant the fraction of a group (here an occupation) who belong to a union or are represented in a collective bargaining agreement by a union.

<CG.A.17> Public and private secondary school graduation rates by census division and race: 1910 to 1962

School	Public and private secondary school graduation rate											
year	New	Middle	South A	Atlantic	East Sou	th Central	West Sou	ıth Central	East North	West North	Mountain	Pacific
ending	England	Atlantic	All	Whites <sup>2</sup>	All	Whites <sup>2</sup>	All	Whites <sup>2</sup>	Central	Central		
Units	fraction	fraction	fraction	fraction	fraction	fraction	fraction	fraction	fraction	fraction	fraction	fraction
HS no.	new	new	new	new	new	new	new	new	new	new	new	new
col. no.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1910	0.155	0.080	0.041		0.038		0.043		0.125	0.106	0.088	0.117
1911	0.165	0.088	0.046		0.042		0.051		0.130	0.111	0.102	0.132
1913	0.187	0.102	0.059		0.056		0.062		0.153	0.136	0.130	0.171
1914	0.201	0.110	0.065		0.062		0.068		0.162	0.146	0.129	0.192
1916	0.228	0.129	0.075		0.074		0.079		0.183	0.174	0.164	0.229
1918	0.246	0.142	0.085		0.084		0.110		0.215	0.199	0.185	0.248
1920	0.253	0.139	0.086		0.086		0.120		0.209	0.205	0.198	0.273
1922	0.272	0.165	0.105		0.103		0.130		0.250	0.246	0.239	0.309
1924	0.309	0.197	0.135		0.133		0.166		0.298	0.304	0.293	0.359
1926	0.337	0.217	0.156		0.139		0.184		0.311	0.387	0.312	0.394
1928	0.359	0.223	0.171		0.162		0.198		0.334	0.394	0.353	0.432
1930	0.394	0.254	0.192	0.242	0.170	0.214	0.225	0.253	0.360	0.410	0.380	0.447
1932	0.478	0.316	0.225	0.288	0.184	0.233	0.276	0.314	0.430	0.476	0.454	0.551
1934	0.512	0.389	0.250	0.297	0.210	0.248	0.295	0.327	0.494	0.504	0.481	0.567
1936	0.586	0.474	0.307	0.378	0.245	0.299	0.343	0.385	0.530	0.545	0.532	0.625
1938	0.599	0.516	0.353	0.432	0.260	0.310	0.381	0.423	0.543	0.578	0.557	0.678
1940	0.602	0.543	0.377	0.444	0.303	0.356	0.427	0.473	0.572	0.615	0.576	0.711
1942 <sup>1</sup>	0.616	0.579	0.409	0.484	0.309	0.364	0.463	0.518	0.618	0.623	0.589	0.666
1944 <sup>1</sup>	0.454	0.514	0.355	0.411	0.260	0.302	0.376	0.420	0.541	0.543	0.476	0.532
1946 <sup>1</sup>	0.563	0.553	0.310	0.349	0.292	0.339	0.383	0.425	0.579	0.582	0.523	0.597
1948 <sup>1</sup>	0.625	0.622	0.369	0.410	0.347	0.397	0.450	0.501	0.637	0.636	0.580	0.653
1950 <sup>1</sup>	0.665	0.631	0.408	0.441	0.388	0.441	0.450	0.496	0.638	0.64	0.573	0.638
1952	0.591	0.567	0.387	0.420	0.379	0.421	0.443	0.481	0.584	0.623	0.539	0.557
1954	0.610	0.561	0.433	0.464	0.455	0.448	0.515	0.501	0.625	0.668	0.588	0.599
1958 <sup>1</sup>	0.622	0.592	0.475	(NA)	0.478	(NA)	0.531	(NA)	0.623	0.68	0.595	0.624
1962	0.682	0.652	0.542	(NA)	0.523	(NA)	0.579	(NA)	0.656	0.702	0.651	0.716

Sources: <CG.A.17.1> to <CG.A.17.12>, 1910 to 1962, U.S. Office (Department) of Education, *Biennial Surveys of Education of the United States*, various years; U.S. Department of Health, Education, and Welfare, *Statistics of State School Systems* and *Statistics of Non-Public Secondary Schools*, various years; National Catholic Welfare Conference, *Summary of Catholic Education*, various years. See Claudia Goldin, "America's Graduation from High School: The Evolution and Spread of Secondary Schooling in the Twentieth Century," *Journal of Economic History* 58 (June 1998): 345-74, and "Appendix to How America Graduated from High School," National Bureau of Economic Research Historical Working Paper no. 57 (June 1994), although some of the numbers have been reestimated. The numbers of 17-year olds (or half the number of 17- and 18-year olds) by state are from the decennial U.S. population censuses (1910 to 1970) and are interpolated between census years using a constant growth rate procedure.

The graduation rate is the number of secondary school graduates in a given year divided by the number of 17-year olds in that year. Thus, the data represent the contemporaneous graduation rate. It does not matter that secondary school graduates can be more (or less) than seventeen years old. The age of seventeen is chosen for convenience and because there is generally less understatement for males at that age than after. Graduates can be from public schools (junior highs, senior highs, regular high schools, and so on), private schools (secular and denominational), or the preparatory departments of colleges and universities. The criterion for graduation may depend on state regulations. See <CG.A.11> for the national graduation rates. The data underlying the estimates for the states (aggregated here to the census division level), sum to approximately the aggregate data for the nation by year. See references under sources for details. Because of the lack of private school statistics, these data cannot easily be extended beyond 1962.

Census divisions are standard; see, for example, U.S. Bureau of the Census, *Historical Statistics of the United States* (Washington, D.C.: U.S. G.P.O., 1975), p. 5.

## Footnotes:

\1: Extrapolated on the basis of the public secondary school graduate rate because the number of private school graduates cannot be estimated reliably for 1942 to 1950 and for 1958.

\2: Derived from the total number of graduates minus those from non-white segregated schools.