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ABSTRACT

This is the first of two volumes of the National Center for Education Statistics' annual statistical report on the condition of education in the United States for 1990. This volume addresses elementary and secondary education, while the second volume covers postsecondary education (PE). Condition of education indicators (CEIs)--key data that measure the health of education, monitor important developments, and show trends between 1970 and 1989 in education--are provided. This volume includes the text, tables, and charts/graphs for each CEI plus technical supporting data, supplemental information, data sources, and glossaries. Most CEIs examine relationships; show changes over time; compare subpopulations, regions, or states; or study traits of students from different backgrounds. For student progression and outcomes, context, and resources, 29 CEIs are provided. New CEIs in 1990 include high school (HS) drop-out rates, HS students' course-taking patterns, proportion of HS students who work while attending school, and eighth graders' attitudes about school climate. The document also provides disparate data on preprimary education, drop-outs and completions, achievement, students in the schools, and minorities. (RLC)

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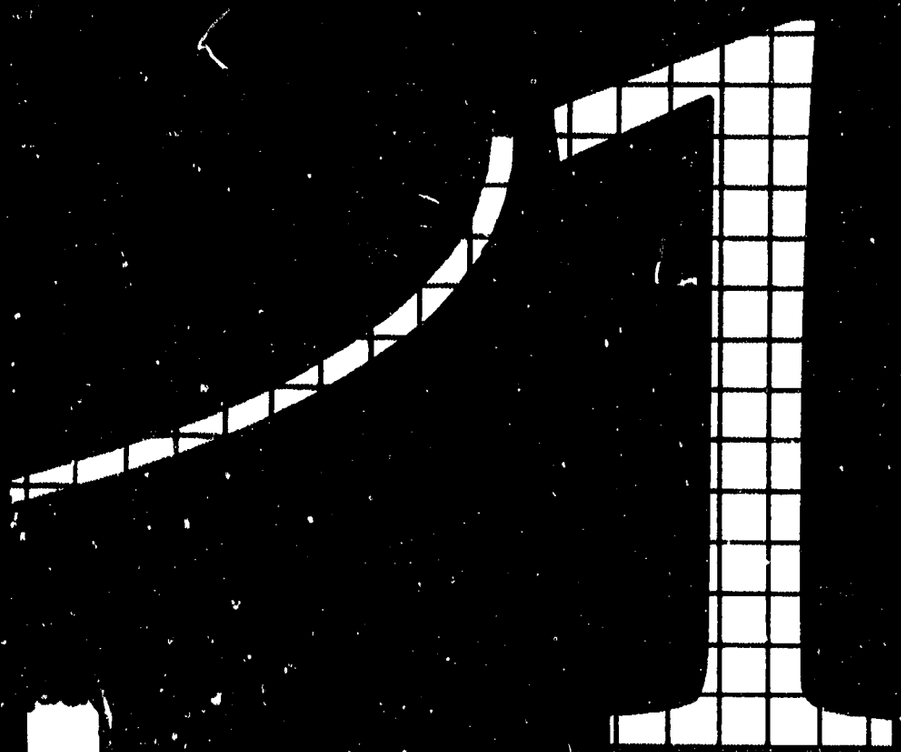

U.S. Department of Education
Office of Educational Research and Improvement NCES 90-681

THE CONDITION OF EDUCATION 1990

Volume 1

Elementary and Secondary Education

Laurence T. Ogle, Editor
Nabeel Alsalam, Associate Editor

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U.S. Department of Education
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National Center for Education Statistics
Emerson J. Elliott
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Sharon K. Horn
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National Center for Education Statistics

"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

The National Center for Education Statistics (NCES) gathers and publishes information on the status and progress of education in the United States. The Federal authorization for these activities (with antecedents to 1867) states that the Center will "collect, collate, and from time to time, report full and complete statistics on the condition of education in the United States." The law, amended numerous times, now mandates an annual statistical report on the subject from the Commissioner of Education Statistics. This report is the 1990 edition of the *Condition of Education* prepared in response to the requirements of law.

This year, the condition of education "indicators"—key data that measure the health of education, monitor important developments, and show trends in major aspects of education—are published in two volumes. The first volume addresses elementary and secondary education and the second, postsecondary education. Each of these includes the text, tables, and charts for each indicator plus the technical supporting data, supplemental information, and data sources.

The indicators presented in these volumes have been developed through studies carried out by the Center as well as from surveys conducted elsewhere, both within and outside the Federal Government. Although indicators may be simple statistics, more often they are analyses—examining relationships; showing changes over time; comparing or contrasting subpopulations, regions, or States; or studying characteristics of students from different backgrounds. Data used for these indicators are the most valid and representative education statistics available in America today for the subjects and issues with which they deal.

The indicators portrayed here are selective. No more than 50 to 60 indicators are presented in each year's report. By contrast, the Center's other major annual compendium, *The Digest of Education Statistics*, includes more than 350 statistical tables, plus figures and appendices. These indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education at this time, but tempered, necessarily, by the availability of current and valid information. They reflect a basic core that can be repeated with updated information every year and supplemented by a more limited set of indicators based on infrequent or one-time studies.

This year, for elementary and secondary education, new indicators include:

- High school dropout rates;
- Course-taking patterns of high school students;

- The proportion of high school students who work while attending school; and
- Eighth graders' attitudes about school climate.

For postsecondary education, new indicators include:
- College enrollment rate for recent high school graduates;
- Tuition charges as a fraction of income of families with children;
- Proportion of young adults holding jobs, by years of schooling completed; and
- Distribution of college students by parents' education and income.

The concept of education indicators has gained the attention of the U.S Congress, national organizations, States, and localities. To assist the Center in conceptualizing and developing a set of education indicators most useful to policymakers and researchers, the Congress has mandated that NCES convene a special study panel of experts to "make recommendations concerning the determination of education indicators for study and report" (Public Law 100-297). The Commissioner is to submit the report of the panel to Congress upon completion of its work. The panel held its first meeting in November of 1989, and its deliberations are to be concluded in May of 1991. Its work could result in major changes to the *Condition* after that.

In developing indicators, the Center has participated in a widening national discussion about the types of measures that are useful in monitoring the progress of education. The adoption of a set of National Goals for Education by the President and the Nation's Governors will require development of a series of measures to monitor progress toward those goals. A number of local education agencies and States, such as California and Connecticut, are monitoring their own reform agendas through education indicators. Also, at the national level, the Council of Chief State School Officers seeks to have consistent reporting by the States on a number of indicators that it has identified.

In future editions, the utility of this report should increase as more diverse, high quality data become available, especially as new time series can be constructed. Elementary and secondary education data will be enhanced by revisions in the basic data collected about public schools in the Common Core of Data survey, and by the results from the Schools and Staffing Survey (SASS), which covers both public and private schools.

Data collection from more postsecondary institutions than the traditional accredited 2- and 4-year colleges and universities has already begun. This expanded system, called the Integrated Postsecondary Education Data System, also includes information from nonaccredited institutions whether they are public or private, 4-year, 2-year, or less-than-2-year. Information from this broader group of institutions will provide a much clearer picture of what is happening in the full scope of

postsecondary education. Two new data systems begun at the Center are the basis of new indicators in the postsecondary volume. They are the National Postsecondary Student Aid Study (NPSAS) and the National Study of Postsecondary Faculty (NSOPF).

Finally, the format of *The Condition of Education* is designed to present statistical information in an accessible manner for a general audience. As in 1988 and 1989, the essence of each indicator is on two facing pages, including a graphic representation of the major implications of the indicator. An innovation of this edition is the addition of a table with the numerical values for the indicator on the first page. The second page includes one or more charts. In addition, there is a discussion preceding each group of indicators relating them to one another. As in previous years, additional tables supporting each indicator are placed in an appendix.

I hope you find the material helpful and invite you to send us comments on how to make future editions even more useful.

Emerson J. Elliott
Acting Commissioner of
Education Statistics

Acknowledgments

The Condition of Education was prepared in the National Center for Education Statistics (NCES), Office of Educational Research and Improvement (OERI), by the Indicators and Reports Branch of the Data Development Division under the general supervision of Jeanne E. Griffith, Acting Associate Commissioner.

Curtis O. Baker, Acting Chief of the Indicators and Reports Branch, coordinated the development and production of this edition. Mary Frase reviewed the first draft of this volume and made many important suggestions that improved the final result. She also provided valuable technical guidance. Brenda Wade prepared the graphics including coordination of the styles and establishment of the graphic standards. Yupin Bae of Pinkerton Computer Consultants, Inc., translated the supplementary tables between computer software formats, and reworked many of the indicators to increase consistency of format. Mark Schwartz, currently of the Office of Vocational and Adult Education, contributed *indicator 1:13*. Diana Thomas helped prepare data files and typed portions of the manuscript.

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Cynthia Hearn Dorfman, from Information Services of OERI, directed the production of this edition. Margery Martin edited the volume. Phil Carr designed the cover.

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Susan Ahmed, Statistical Standards and Methodology Division, provided guidance on the calculation of standard errors and the use of graphics, and adjudicated the final document. Her advice contributed to the technical consistency and quality of the report.

NOTE: These acknowledgments recognize only those who helped develop new indicators for this edition and who helped update indicators repeated from the 1988 and 1989 editions. Mention is not made of those who contributed to the initial development of continuing indicators and who were identified in earlier editions.

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"Why do we seek to know the condition of education? In the answer to this question will be found the reasons for the elaborate statistical record which forms a feature of all official school reports. We take an account of education so that we may know whether it is sufficient in amount and good in quality."

Henry Barnard
First Commissioner of Education

Introduction

During the 1980s, the country became increasingly aware of the range of critical issues facing the schools. These issues were nationwide in scope, and included problems of low academic performance, concerns about teacher qualifications and availability, violence in the schools, the use of drugs, and issues surrounding the curriculum. As stated by *A Nation at Risk* in 1983, "...the educational foundations of our Society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people."[1] These issues continue to have serious implications, not only for the schools, but for the future of individual citizens, U.S. economic competitiveness, and ultimately the structure and cohesiveness of American society and culture.

The Nation responded by renewing its commitment to excellence. The thrust of this commitment constituted a major reform movement, involving government at all levels, school officials and teachers, as well as interested parents and citizens. During the 1980s, an attempt to foster these reforms was undertaken.

As the Nation enters the 1990s, the reform movement has gained new momentum. In September 1989, at the request of President Bush, a national education summit was convened in Charlottesville, Virginia. At that meeting, a number of areas for the development of education goals was identified. A set of six major goals was enunciated in the 1990 State of the Union message by President Bush. The goals are as follows:

[1] U.S. Department of Education, *A Nation at Risk*, p. 5, 1983.

By the year 2000:

- **All children in America will start school ready to learn;**
- **We will increase the percentage of students graduating from high school to at least 90 percent;**
- **Students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy;**
- **U.S. students will be first in the world in science and mathematics achievement;**
- **Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship;** and
- **Every school in America will be free of drugs and violence and offer a disciplined environment conducive to learning.**

These goals have since been elaborated and expanded upon by the Nation's Governors, who, in February 1990, presented a list 21 objectives to supplement the goals. Now, one phrase used to describe the commitment to education is a "national crusade."[2]

The reform movement has just been initiated for the 1990s. The next stage will see the development of a national strategy for reaching these goals. Progress toward reform and the national goals, however, needs to be monitored. *The Condition of Education* provides a means to assess the amount, and more importantly, the quality of American education. By presenting data on a broad spectrum of issues in American education (some beyond the scope of the national goals), this publication can help monitor the condition of education as the Nation progresses through a decade of possibly unsurpassed educational action.

[2] "With Goals in Place, Focus Shifts to Setting Strategy," *Education Week*, 9, (24), March 7, 1990, pp. 1, 20.

The Structure of *The Condition of Education*

This volume of the 1990 edition of *The Condition of Education* presents 29 indicators on the state of elementary and secondary education in the United States. The indicators were chosen carefully to shed light on some important issues in elementary and secondary education. That is, the *Condition* attempts to take "account of education" on a wide variety of current topics. The indicators presented touch on many issues related to the national goals, and extend beyond them. This volume presents elementary and secondary data on: student progress and completions, performance, participation in various curricula, the size and growth of the schools, student characteristics, fiscal characteristics of the schools, teachers and administrators, and the school climate.

A quick tour of the volume may help readers make the best use of it. The 29 indicators are organized into 3 parts, and 9 sections. The three parts are (1) Student Progression and Outcomes, (2) Context, and (3) Resources.

In part 1, we follow students through the education pipeline. That is, students are followed from the beginnings of education in prekindergarten and kindergarten, progressing in elementary school, completing or dropping out of high school, and moving into postsecondary education or the workplace. Section A, Student Progress and Completions, includes measures on progression through elementary school and two measures on high school dropouts. Also included are data on high school completions by young adults. Section B, Student Performance, presents the results of six student assessments. Measures of educational achievement include mathematics, science, reading, writing, and geography. International measures of mathematics and science achievement are also included, as well as results from college admission tests (i.e., SAT and ACT). Section C, Economic Outcomes, presents employment and salary data, by years of schooling completed. Section D, Student Participation in Various Curricula, includes data on enrollment in federally-supported programs and a comparison of course-taking patterns of American students in 1982 and 1987.

Part II presents data on the context of elementary and secondary education. Section E, Size and Growth of the Schools, includes data on enrollment rates in preprimary education (both prekindergarten and kindergarten) and enrollment at various levels, and different types of preprimary institutions. Also presented in section E are enrollment figures in elementary and secondary education and projections of future enrollment at those levels. Section F, Student Characteristics, presents data on the distribution of enrollment, by race and ethnicity, and the number and percentage of children under 18 in poverty. Section I, School Climate, includes data on eighth

graders' attitudes toward school climate, teachers' and the general publics' perception of problems in the schools, and the use of drugs by high school students.

Part III contains data on resources in education, including human as well as fiscal resources. Section G, Fiscal Resources, presents data on revenues by source (i.e., local, State, and Federal) and as a percentage of Gross National Product (GNP), expenditures per pupil, and the national index of public school revenues. Section H, Teachers and Administrators, includes data on the percentage of teachers on school staffs, teacher salaries in 1989 constant dollars, and the projected demand for new hiring of public school teachers. Also included are new data on school administrators.

Some indicators inform about progress of the student or young adult population, whereas others inform about the educational system as a whole. Many indicators contain clear population reference groups. The majority of indicators contain data on: (1) elementary and secondary school-age children of various ages (*indicators 1:1, 1:2, 1:4, 1:5, 1:6, 1:7, 1:8, 1:9, 1:12, 1:1:13, 1:17, 1:18, 1:19, 1:26, 1:27*). Other reference groups include: (2) high school graduates (*indicators 1:3, 1:10, 1:11*), (3) high school dropouts (*indicators 1:2, 1:10, 1:11*), (4) young adults (*indicators 1:3, 1:10, 1:11*), and (5) teachers and administrators (*indicators 1:22, 1:26, 1:27, 1:28, 1:29*). For most indicators on students, information on race and ethnicity is also presented, as are time–series data covering at least 10 years.

In this edition of *The Condition of Education*, a new format is used. At the beginning of each section is a brief essay discussing the importance of that set of indicators. On the first page of each indicator is a section of text explaining the significance and relevance of the indicator. Below that are a number of bullets highlighting important facts drawn from the data. On the bottom of the first page is a table of the data used in the indicator. This feature simplifies the task of finding the data which relate to the bullets or the charts. On the facing page are the charts. Instead of presenting just one, most indicators have two charts so that more graphical data can accompany the text and data. The back of the book contains supplemental tables. Unlike the last 2 years, two complete separate volumes will be published (i.e., a volume on elementary and secondary education, and a volume on postsecondary education). No combined third volume will be issued.

In the remainder of the overview, we gather some of the disparate pieces of evidence on particular issues: (1) preprimary education, (2) dropouts and completions, (3) achievement, (4) students in the schools, and (5) minorities.

Preprimary Education

One of the principal functions of preprimary education is to prepare children for elementary school instruction. The national goals announce that all children will start school ready to learn. Unfortunately, at present *The Condition of Education* is not able to report readiness; no national instrument capable of measuring readiness to learn currently exists. Nevertheless, this volume does provide some insights into patterns of attendance and enrollment.

Race/ethnic patterns. Enrollment in preprimary education has been rising for most groups. At the prekindergarten level (Pre-K), white enrollment rates doubled from 1972 to 1987. For black children, rates increased rapidly from 1972 to 1979, equaling or surpassing white 3- to 4-year-olds during that period. But since 1979, black enrollment rates have declined, so that by 1987, black enrollment rates had fallen below white Pre-K enrollment rates by about 8 percent. Hispanic rates were substantially below those of both black and white 3 to 4-year-olds (*indicator 1:14*).

Enrollment rates in kindergarten, however, have been consistently rising for black 5-year-olds. In 1972, only about 67 percent of black 5-year-olds were enrolled in kindergarten; by 1986, approximately 82 percent of black 5-year-olds were enrolled. White enrollment rates in kindergarten rose fairly rapidly in the mid- and late 1970s, but since then have levelled off. Hispanics enrollment rates in kindergarten have been similar to those of whites and blacks (*indicator 1:15*).

Types of control. At the Pre-K level, the majority of children attend private institutions. Enrollment in private Pre-K more than doubles enrollment in public prekindergarten. Additionally, since 1972, enrollment in both types of institutions has steadily risen. At the kindergarten level, enrollment is highest at public institutions. Almost 5 times as many students attend public kindergarten as attend private kindergarten (*indicator 1:15*).

Time spent in school. The percentage of 3- to 5-year-olds attending preprimary schools part-day has risen about 6 percent since 1969. The largest gains, however, have occurred with full-day students. In 1969, only about 5 percent of all 3- to 5-year-olds were enrolled in preprimary education on a full-day basis. By 1987, that figure had almost quadrupled to about 19 percent (*indicator 1:15*).

Conclusion. Preprimary enrollment rates are rising for most groups and at all levels. Additionally, a larger percentage of children are attending on full-day schedules than in the past. As a result, preprimary education has become a larger and more important component in American education. Yet, the skills which it imparts remain largely unmeasured.

Dropouts and Completions

The dropout problem is one which has taxed the energies of both educators and policymakers. Included in the national goals for education is the proposition that the percentage of students graduating from high school will be 90 percent by the year 2000.

Students falling behind. One factor which has been cited as possibly placing students at risk for dropping out of school is falling below modal grade.[3] Modal grade is defined as the grade in which most children of a certain age are enrolled. For example, most 8-year-olds are in the third grade, and most 13-year-olds are in the eighth grade. Since 1980, minorities have experienced a substantial increase in the percentage of individuals below modal grade. A large survey of eighth graders in 1988 suggests that about 30 percent of all eighth graders in 1988 had repeated at least one grade.[4]

Thirteen-year-old black males have the highest percentage of individuals (44.2 percent in 1985) below modal grade. Black females 13 years of age also have a high percentage below modal grade—35 percent in 1985. White females and males typically have the lowest percentage of individuals below modal grade (*indicator 1:1*).

Of the sophomore class of 1980, about 17 percent did not complete high school on time (1982). However, by 1984, 5.2 percent of that group had either returned to earn their high school diploma, or completed an equivalency certificate. By 1986, another 2.8 percent had completed high school or completed an equivalency certificate. Thus, by 1986, of the 17 percent who had failed to complete high school on time, an additional 8.1 percent had returned and completed high school. That is, of those who did not complete on time, almost 50 percent had finished high school or completed an equivalency certificate by 1986. This means that 90.7 percent of the sophomore class of 1980 had completed high school by 1986 (*indicator 1:2*).

Race/ethnic trends. From 1963 to 1987 the total dropout rate (which is the proportion of students who drop out in a single year without completing high school) fell from 5.3 percent to 4.3 percent. Of all racial/ethnic groups, the dropout rate of blacks had fallen most rapidly. In 1963, the black dropout rate was 9.2; by 1987 the

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[3] *Turning Points: Preparing American Youth for the 21st Century*, Carnegie Council on Adolescent Development, Carnegie Corporation of New York, 1989.

[4] U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 — *A Profile of the American Eighth Grader: NELS:88 Student Descriptive Summary*, In press.

rate was at 6.7 percent. The rate for Hispanics, however, remained high—9.5 in 1987.

Examining high school completions at ages 25 to 29 takes into account those individuals who took a longer time to complete high school, or dropouts who obtained their high school diplomas at a later date. Between 1965 and 1977, the overall high school completion rate for 25- to 29-year-olds increased from 70 to 85 percent. Since 1977, the completion rate for this age group remained at about 85 or 86 percent. A dramatic increase in completions took place for blacks. From 1965 to 1987, the rate for blacks increased from about 50 percent to approximately 83 percent. In 1965, a difference of 22 points separated blacks and whites. By 1987, black completion rates were only 3 percentage points below whites. Hispanic completion rates, remained low—60 percent in 1987 (*indicator 1:3*).

Conclusion. These trends suggest that overall, a large increase in the percentage of individuals earning a high school diploma or equivalency certificate occurred through the 1960s and much of the 1970s. Many students—possibly as many as half—who drop out of high school later return to complete their studies or earn an equivalency diploma. For the sophomore class of 1980, for example, by 1986, almost 91 percent of the students earned either their high school diploma or an equivalency certificate. Overall, a substantial number of individuals have fallen below grade since 1980. As noted above, being below the modal grade has been identified as an at-risk factor for dropping out of school. High rates of students below modal grade have been observed in the eighth grade class of 1988. It remains to be seen if this will later be associated with higher dropout and lower completion rates for this cohort.

Achievement

A consistent complaint is that American students typically do not achieve at very high levels in academic areas. One national goal states that American students will be first in the world in science and mathematics by the year 2000. Between now and then, a significant improvement in U.S. students' performance will be required to meet that goal.

Mathematics. In an international assessment of math and science in 1988, American students ranked last in mathematics among six developed countries. In a separate mathematics assessment in 1986, American 13-year-olds scored in the basic range, indicating an ability to understand basic operations and beginning problem solving. By contrast, Korean 13-year-olds, on average, operated in the intermediate range, and could solve two-step problems. Furthermore, mathematics scores among U.S. students have not risen much overall since 1971 (*indicators 1:6, 1:7*).

Science. Results from science assessments are similar. In an international assessment, U.S. students placed in the lowest group of nations; second to last, overall. Again, American 13-year-olds tested on a separate scientific assessment in 1986, placed only marginally in the basic category. Their scores suggest that the average American 13-year-old could understand and apply only simple scientific principals. By contrast, Korean 13-year-olds, placed in the level above American students and were able to use scientific procedures and analyze scientific data. In both math and science, American students need to improve their skills considerably if they are to equal, much less surpass, their international counterparts (*indicators 1:6, 1:7*).

Reading. Reading is a necessary prerequisite for effective learning. In a national reading assessment in 1988, both 17- and 13-year-olds scored in the intermediate range of reading proficiency, although the 17-year-olds scored at the upper bound of the range. Scores at this level signify that students can search for specific information, interrelate ideas, and make generalizations. Almost 42 percent of the 17-year-olds scored in the adept range, which means that this percentage of 17-year-olds could find, understand, summarize, and explain relatively complicated information. Still, about 58 percent of the 17-year-olds were unable to produce scores in this level (*indicator 1:4*).

Writing. Being able to write effectively is another requirement for effective learning. In 1988, a national assessment of writing proficiency was undertaken. Results from this measure indicate that, overall, students were performing at approximately the same levels as they did on the previous writing assessment in 1984. Eleventh graders placed, on average, in the minimal range, as did eighth graders. That is, both groups received scores indicating that students recognized some or all of the elements needed to complete the writing task but did not manage these elements well enough to assure that the purpose of the task would be achieved. The scores of the 17-year-olds cause the greatest concern, because, on average, students about to enter postsecondary education or the workplace were unable to produce adequate writing samples (*indicator 1:5*).

Geography. A new assessment in geography suggests that many high school seniors appear to possess a working knowledge of geography which is somewhat broad, but insubstantial. For example, a large percentage of students were able to identify major countries on a map, were cognizant of trouble spots in the world, and were aware of some ecological problems. However, most students could not identify the effects of some ecological problems, and one-fourth of the students were unaware that the United States was a major exporter of grain. Perhaps most

revealing, less than two-thirds of the 12th grade students who participated in the geography assessment reported having taken a geography course at any grade in high school (*indicator 1:8*).

Conclusion. In sum, relative to students in other countries, American students performed poorly on assessments of mathematics and science. On both assessments they were in the lowest group of countries, and in mathematics they ranked last. Results of the reading and writing assessments point to low or moderate skills in these areas, as well. Overall, there has been little change in assessment results since the last set of assessments were conducted. Stagnation at a relatively low level appears to describe the level of performance of American students on the various national assessments. Two additional points should be mentioned. First, while the overall scores on national assessments administered in recent years have remained the same or declined slightly, a number of scores produced by minority students, especially blacks, have increased significantly since earlier assessments. Nevertheless, while the gap between whites and minorities has significantly narrowed, the scores of minority students are still well below those of whites. Second, the students who graduated in 1987 had taken more core courses (i.e., mathematics, science, English, etc.) than students in 1982. The largest increases in the number of courses taken occurred in science, mathematics and languages. On national assessment measures, student science and mathematics scores rose somewhat in recent years. Language was not assessed. Thus, to this point, only modest gains have been made in areas in which students have taken an increased number of courses.

Students in the Schools

The students. The composition of the student population is changing. In 1976, 76 percent of the students were white. In 1986, that figure was down to 70 percent, and it is expected to continue declining through at least the first half of the 21st century. The minority population, on the other hand, is expanding. As minority students enter the schools in increasing numbers, they are bringing new languages, cultures, and conceptions of education to the classroom (*indicator 1:17*).

Disadvantaged students. Generally, a higher percentage of minorities have incomes below the poverty level than non-minority individuals. For example, in 1987, black children under 18 were three times as likely as white children to be living in poverty,

and Hispanic children were about 2.6 times as likely. Some recent data[5] suggest that by the year 2020, non-minority children will comprise about 54 percent of all children in elementary and secondary public education. Since minority status and poverty are positively correlated, this increase could portend an increasing demand on schools for a number of educational and social services which traditionally either have not been provided or provided on only a limited basis (*indicator 1:18*).

Perceptions of school climate. What are the schools really like? To a great extent, the answer depends on whom is asked. For example, depictions of schools from some of the media suggest images of wild, undisciplined students in an intolerable environment; a place where drugs and violence severely limit the possibility of learning. In a recent survey on problems facing public schools, the attitudes of public school teachers were compared with those of the general public. The public stated that the use of drugs was the most serious problem facing the schools. Teachers, however, saw the parents lack of interest as the most serious problem; fewer than 20 percent of the teachers thought drugs were a serious problem at their school. Moreover, for almost every major category, there were large discrepancies between the teachers' and the general publics' perceptions of school problems (*indicator 1:22*).

On another survey, The National Educational Longitudinal Study of 1988 (NELS:1988), eighth graders were questioned about the climate in their schools. Their responses presented a mixed picture. Overall about 12 percent of students felt unsafe at their schools. But about twice as many black eighth graders as white eighth graders felt unsafe. However, on most other issues, there was little that differentiated the race/ethnic groups. Substantial differences were found among eighth graders by the type of school attended. Students from "other private schools" (i.e., not classified as either Catholic or independent) expressed a much more positive attitude toward schools than their public school counterparts in almost every category. Nevertheless, a large majority in all schools stated that the teaching they were receiving was good, and another large percentage thought that their teachers were interested in the students (*indicator 1:20*).

Drug usage. Drug usage appears to be down, at least for high school seniors. For example, in 1981, almost 66 percent of high school seniors reported having used illegal drugs at some time. Since 1981, this figure has consistently declined. In 1989, the percentage of seniors who reported having ever used drugs was about 51 percent. This figure is still unacceptably high, but the trend through the 1980s

[5] Pallas, A.M., G. Natriello, E.L. McDill, "The Changing Nature of the Disadvantaged Population: Current Dimensions and Future Trends," *Educational Researcher*, 18, (5), 1989.

indicates that fewer high school seniors are using illegal drugs. The percent of seniors who have ever used alcohol, however, has been and continues to remain unacceptably high (i.e., above 90 percent throughout the 1980s) (*indicator 1:21*).

Conclusion. The schools, then, are becoming increasingly minority, a factor that raises concerns about economic disadvantage among future students; teachers and the U.S. public considerably disagree on the problems which face the schools; in their attitudes about school climate, eighth graders were divided less along racial lines than they were by the type of school they attended; and, drug usage by high school seniors has declined throughout the 1980s.

Minorities

A summary of minority status in education is presented below. While this material has been presented previously, it is presented here in bullets to produce a summary of the current standing of minorities in American education.

- The number of blacks falling below modal grade has risen sharply during the 1980s.
- The percentage of dropouts remains much higher for Hispanics than for either blacks or whites.
- Enrollment of blacks and Hispanics in prekindergarten has declined during the 1980s.
- The percentage of children living in poverty is 2 to 3 times greater for minorities than whites.
- Almost twice the number of blacks feel unsafe in their schools as whites.

However,

- The dropout rate for blacks is declining, and high school completions are increasing.
- Generally, blacks' and Hispanics' scores on achievement tests are well below those of whites, but in many cases there has been significant progress on reducing the gap between blacks and whites.
- Enrollment in kindergarten has accelerated for minorities.
- On a survey of attitudes toward school climate, eighth graders were more easily differentiated by whether they attended a public or private school, rather than by their race or ethnicity.

Conclusion

In the preceding discussion we have described only a few of the issues treated by the 29 indicators in this volume. *The Condition of Education* presents data and analyses on a wide variety of issues in elementary and secondary education. The overview has described the structure of this publication and discussed five issues of concern to educators and policymakers. The reader is encouraged to read the overviews to each subsection for discussion of other issues, to peruse the indicators of interest, and to use the supplementary tables for additional details.

Indicators of Elementary and Secondary Education

I. Student Progression and Outcomes

A. Student Progress and Completions

Section A of this volume presents data on the academic progress and completions of students in elementary and secondary education. Data are presented on enrollment in modal grades, high school dropout rates and the percentage of high school completions.

Consistent progress through school is essential for academic success. In this section, academic progress is measured by enrollment in modal grade. Modal grade is the grade in which most children of a certain age are enrolled. For example, the modal grade for 8-year-olds is the third grade, and the modal grade for 13-year-olds is the eighth grade. Research has suggested that those students who fall below their modal grade are at-risk of dropping out of school.[1] The data indicate that black males consistently have a high percentage of individuals below modal grade. Additionally, there is usually a higher percentage of older children below modal grade than younger children. Since 1980, all race groups and both younger and older children have shown substantial increases in the share of children below modal grade.

However, the data also indicate that for most groups, the dropout rate declined during the 1980s, after rising during the 1970s. For black males, the rate generally declined through most of the two decades. The dropout rate for this group dropped almost 4 percent from 1968 to 1987, and is now only slightly higher than the rate for white males. Hispanic dropout rates, however, remain high—at 9.5 percent in 1987. As used here, the dropout rate is a measure of "event dropouts". This measure refers to the proportion of students who dropout in a single year without completing high school.

High school completion rates are presented for the 25 to 29-year-old age-group. This age-group was chosen to take into account late completers—both nondropouts taking longer than average to complete, and dropouts who return to obtain a high school diploma or equivalency credential. The data demonstrate that all racial/ethnic groups have substantially increased their completion rates. This trend is especially clear-cut for blacks. In 1965 completion rates were about 50 percent for all black students; in 1987, the completion rate was about 83 percent—a 33 percent increase in 22 years.

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[1] See *Turning Points: Preparing American Youth for the 21st Century*, Carnegie Council on Adolescent Development, Carnegie Corporation of New York, 1989.

Overall, the data suggest that most students are progressing through school on schedule, but that a consistently high number of black males are falling below modal grade. This would appear to put them at risk of dropping out. However, dropout rates for most groups (except Hispanics) appear to be declining. Moreover, the high school completions of all groups appear to be rising.

A. Student Progress and Completions

Indicator 1:1 Enrollment in modal grade for 8- and 13-year-olds, by sex and race: 1970–1985

This indicator portrays how different groups progress through school by analyzing enrollment in modal grade figures. These numbers indicate the percentage of children below the grade in which most children their age are enrolled. The Carnegie Council on Adolescent Development, and others have stated that students lagging behind in grade are more susceptible to dropping out of school than those in modal grade.

- **Overall, black 13-year-old males have the highest average percentage of individuals below modal grade (an average of 44.2 percent for 1985). This has been the general pattern since 1970.**
- **Since 1980, all groups have experienced substantial increases of individuals below modal grade.**
- **More male students are below modal grade than females.**

Percent 1 or more years below modal grade, by age, race, and sex: 1970–1985 (3-year average)

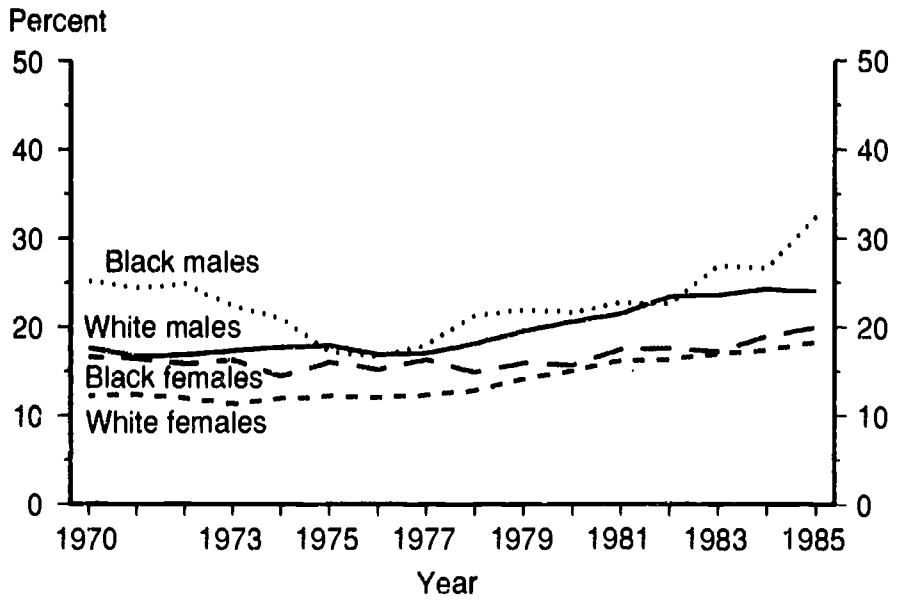
	8-year-olds				13-year-olds			
	White		Black		White		Black	
Year*	Male	Female	Male	Female	Male	Female	Male	Female
1970	17.7	12.3	25.2	16.7	25.4	16.7	42.7	29.1
1971	16.7	12.4	24.4	16.4	25.1	16.7	42.0	26.9
1972	16.9	12.0	24.9	15.9	24.9	17.5	42.8	24.8
1973	17.3	11.4	22.3	16.3	24.9	16.9	43.5	26.7
1974	17.7	11.9	21.0	14.4	24.9	16.5	41.6	27.5
1975	17.9	12.2	17.2	16.0	23.9	15.8	35.3	25.1
1976	16.9	12.0	16.7	15.2	23.5	15.3	29.5	24.1
1977	17.1	12.3	18.0	16.4	22.5	14.7	30.7	23.0
1978	18.1	12.9	21.3	14.9	22.2	14.7	33.2	26.3
1979	19.5	14.1	21.9	15.9	22.9	15.4	36.2	24.7
1980	20.6	15.0	21.6	15.7	24.0	16.9	37.3	26.8
1981	21.5	16.2	22.7	17.5	26.1	17.8	38.7	29.3
1982	23.4	16.3	22.6	17.5	28.3	19.6	43.7	30.5
1983	23.6	16.9	26.8	17.2	29.5	20.2	46.3	30.4
1984	24.3	17.4	26.6	18.9	30.2	20.5	47.0	32.7
1985	24.0	18.3	32.4	19.9	29.1	21.0	44.2	35.0

* Three-year average. For example, the 3-year average percentage for 1985 is the average of the percentages for 1984, 1985 and 1986.

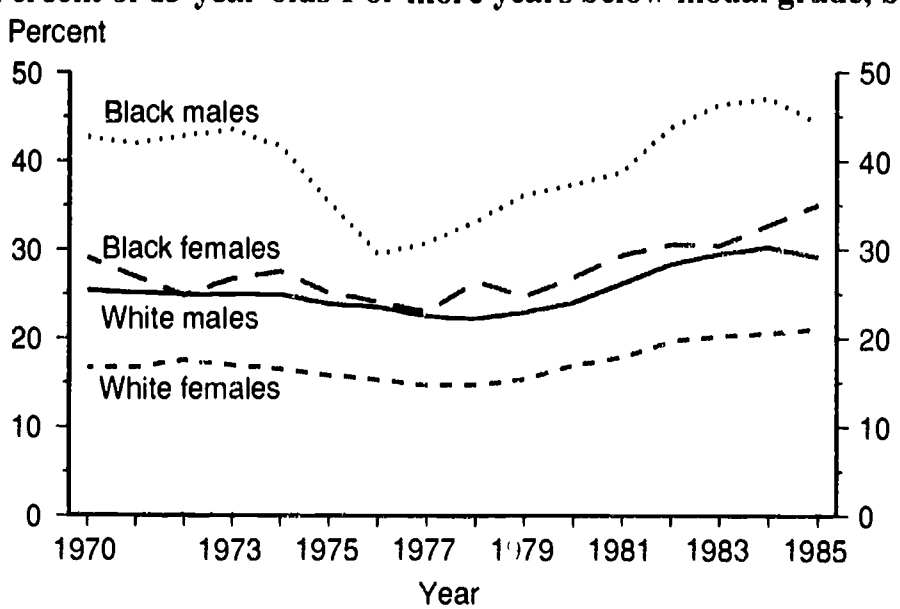
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "SchoolEnrollment . . .," various years, and unpublished tabulations.

Chart 1:1 **Enrollment in modal grade for 8- and 13-year-olds, by sex and race: 1970–1985 (3-year average)**

Percent of 8-year-olds 1 or more years below modal grade, by sex and race:



Percent of 13-year-olds 1 or more years below modal grade, by sex and race:



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School enrollment . . .," various years, and unpublished tabulations.

A. Student Progress and Completions

Indicator 1:2 Dropout rates and late completions

The consequences of dropping out can be severe for both the dropout and society. Recently, concern about dropouts has increased considerably at all levels of government and society. This indicator analyzes the dropout phenomena from two perspectives. First, average "event dropout" rates are presented. An "event dropout" rate measures the proportion of students who drop out during a 12-month period. A second table and chart measure the proportion of dropouts who do and do not return to complete school.

- **Black male dropout rates have fallen from 11 percent in 1969 to 6.2 percent in 1987 (Table 1:2-1).**
- **Hispanic dropout rates have not declined, and are much higher than black or white rates: 9.5 percent 1987.**
- **While the proportion of dropouts was 17 percent for the sophomore class of 1980, almost half returned to receive either a high school diploma or an equivalency certificate by 1986.**

Event dropout rates, by race/ethnicity: selected years 1968–1987 (3-year average)

Year[1]	Total	White	Black	Hispanic[2]
		Percent		
1968	5.3	—	-	—
1970	5.5	—	—	—
1975	6.1	5.7	9.2	9.2
1980	6.2	5.7	9.2	11.1
1985	5.0	4.8	6.3	10.9
1987[3]	4.8	4.6	6.7	9.5

Sophomore class of 1980 completion record

Month/season	Percent completed	Percent not completed
June 1982	82.7	17.3
June 1984	87.9	12.1
Spring 1986	90.7	9.3

— Not available\applicable

[1] Three-year average. For example, the 3-year average percentage for 1987 is the average of the percentages for 1986, 1987 and 1988.

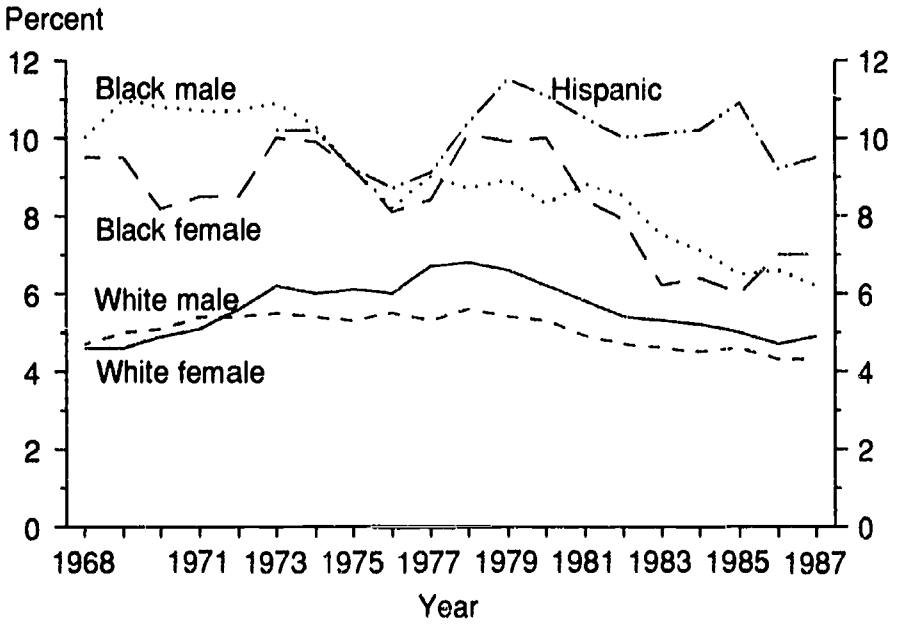
[2] Hispanics may be of any race. Hispanic data starts in 1973.

[3] Rates for this year have been adjusted to take into account changes in CPS data editing procedures. The adjustments were made to facilitate comparisons with the rates for earlier year.

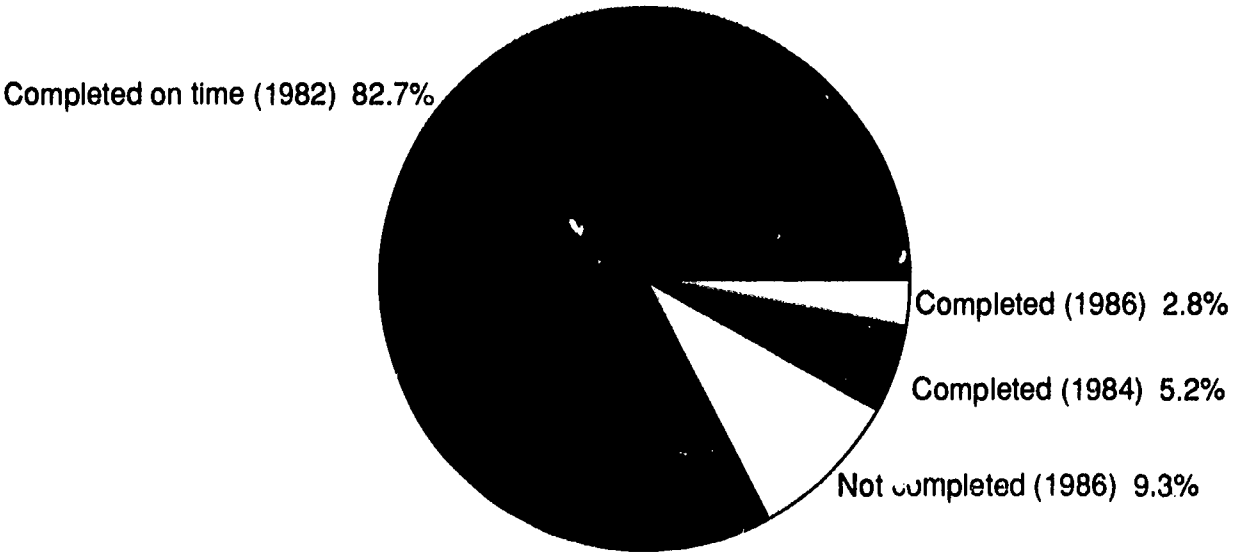
SOURCE: U.S. Department of Education, National Center for Education Statistics, Mary J. Frase, "Dropout Rates in the United States: 1988," September 1989.

Chart 1:2 Dropout rates and late completions

Event dropout rates from grades 10-12, by race/ethnicity, and sex: 1968–1987 (3-year average)



Completers, dropouts, and late completers: sophomore class of 1980



SOURCE: U.S. Department of Education, National Center for Education Statistics, Mary J. Frase, "Dropout Rates in the United States: 1988," September 1989.

A. Student Progress and Completions

Indicator 1:3 High school completion at ages 25-29

One important measure of this Nation's success in educating its youth is the proportion completing high school. Possession of a high school diploma, or its equivalent, signifies that an individual should have sufficient knowledge and skills to function productively in society. Monitoring high school completion rates for 25- to 29-year-olds takes into account those who take longer to complete their high school education.

- **The overall high school completion rate for 25- to 29-year-olds increased from 70 to 85 percent between 1965 and 1977. From 1977 through 1987 the completion rate has remained at 85 or 86 percent.**
- **For blacks, the rates increased dramatically throughout the 1965 to 1987 period. By 1987, the completion rate was 83 percent, only 3 percentage points lower than whites. It was 22 percentage points lower in 1965.**
- **Among Hispanics the high school completion rate is low—60 percent in 1987. In addition, it has not shown the improvement that it has among blacks. Between 1974 and 1987 the high school completion rate increased 8 percentage points among Hispanics and 15 percentage points among blacks.**

Percentage of 25- to 29-year-olds who have completed 12 years of school or more, by race/ethnicity and sex: 1965–1987 (selected years)

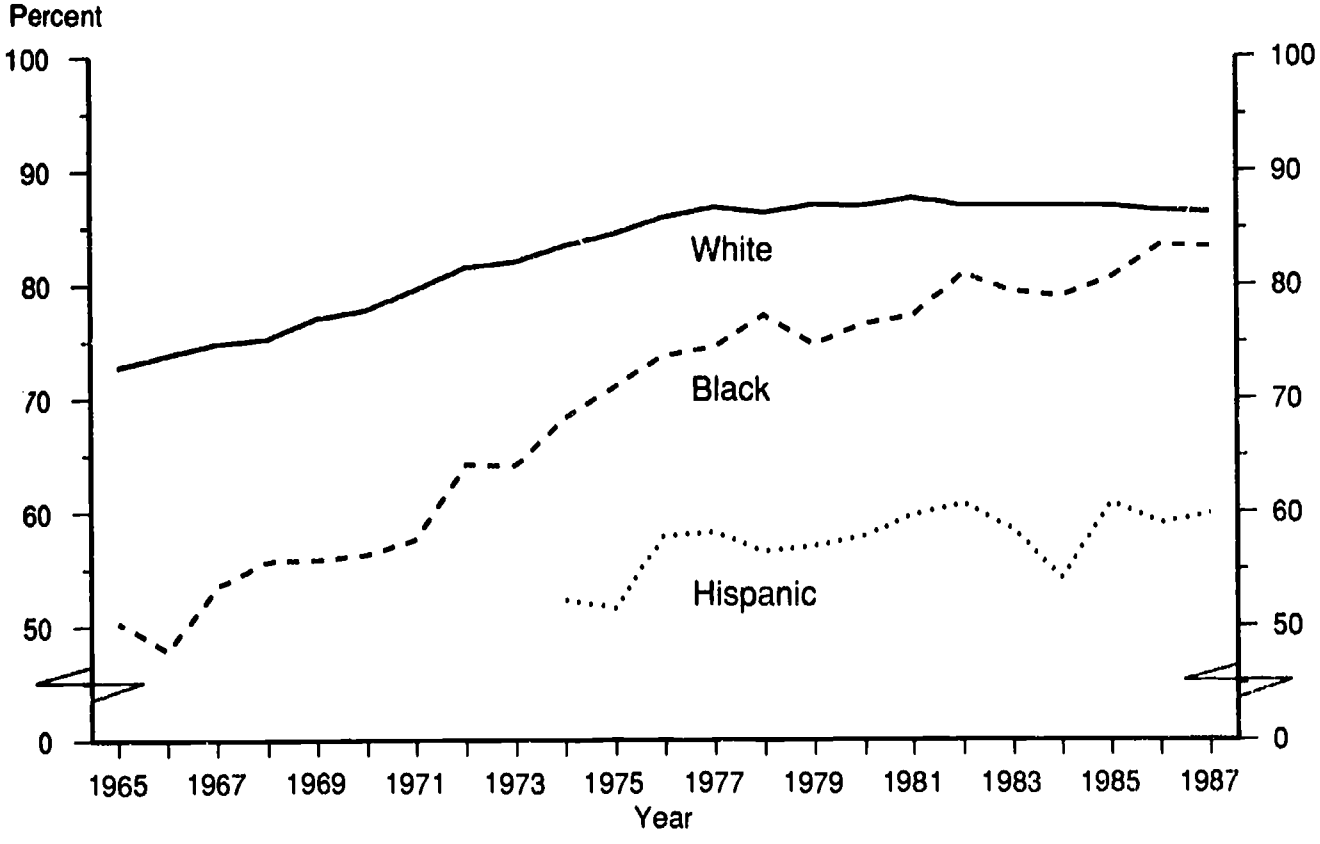
	All races			White			Black			Hispanic*		
Year	Both	Male	Female	Both	Male	Female	Both	Male	Female	Both	Male	Female
1965	70.3	70.5	70.1	72.8	72.7	72.8	50.3	50.3	50.4	—	—	—
1967	72.6	72.4	72.9	74.8	74.3	75.3	53.5	51.7	55.0	—	—	—
1969	74.7	75.6	73.8	77.0	77.5	76.6	55.9	59.8	52.3	—	—	—
1971	77.2	78.1	76.4	79.5	80.8	78.3	57.6	54.1	60.7	—	—	—
1973	80.2	80.6	79.8	82.0	82.4	81.6	64.1	63.1	64.9	—	—	—
1974	84.6	88.8	80.8	83.4	84.1	82.7	68.3	71.1	66.0	52.3	55.1	49.9
1975	83.1	84.5	81.8	84.4	85.7	83.2	71.0	72.2	70.1	51.6	51.1	52.1
1976	84.7	86.0	83.5	85.9	87.3	84.6	73.9	72.5	74.9	58.0	57.6	58.4
1977	85.4	86.6	84.2	86.8	87.6	86.0	74.5	77.5	72.0	58.3	62.1	54.8
1978	85.3	86.0	84.6	86.3	86.8	85.8	77.3	78.5	76.3	56.6	58.5	54.8
1979	85.6	86.3	84.9	87.0	87.6	86.4	74.7	73.9	75.4	57.0	55.5	58.4
1980	85.4	85.4	85.5	86.9	86.8	87.0	76.5	74.7	78.0	57.9	56.9	59.0
1981	86.3	86.5	86.1	87.5	87.6	87.5	77.2	78.4	76.3	59.8	59.1	60.4
1982	86.2	86.4	86.1	86.9	87.0	86.8	80.9	80.5	81.3	60.8	60.5	61.2
1983	86.0	86.0	86.0	86.9	86.9	86.9	79.4	78.8	79.8	58.5	57.9	59.1
1984	85.9	85.6	86.3	86.9	86.8	87.0	79.0	76.0	81.5	54.2	56.7	51.8
1985	86.2	85.9	86.4	86.8	86.4	87.3	80.6	80.8	80.4	60.9	58.6	63.0
1986	86.1	85.9	86.4	86.5	85.6	87.4	83.4	86.6	80.7	59.1	58.2	60.0
1987	86.0	85.5	86.4	86.3	85.6	87.1	83.3	84.8	82.0	59.9	58.6	61.2

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce. Bureau of the Census, *Current Population Reports*, Series P-20. "Educational Attainment in the United States: March . . .," various years.

Chart 1:3 **Percent of 25- to 29-year-olds completing 12 years of school or more: 1965–1987**



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States: March . . .," various years.

B. Student Performance

Section B presents results from reading, writing, mathematics, geography, and science assessments, together with international comparisons, and college entrance examination scores.

Reading and writing are essential elements in education. In 1988, these two areas were assessed by the National Assessment for Educational Progress (NAEP). Overall, the data indicated that American students continued to operate at rather low levels of performance. For example, on the NAEP reading measure, no group at any age level achieved an average score in either the "advanced" or even "adept" levels. (For an explanation of the various levels, see *indicator 1:4.*) Nevertheless, about 42 percent of the 17-year-olds are "adept" readers. Still, few gains were made since the NAEP reading assessment in 1984. Increases were achieved by black 13- and 17-year-olds significantly narrowing the gap between blacks and whites. Still the scores of both blacks and Hispanics remained well below those of their white counterparts.

Writing results were quite similar to those from the reading assessments. There was little change since 1984, and few students could perform at the highest levels of the scale.

Mathematics and science knowledge are also essential for educational progress. Moreover, the mathematics and science skills of our workers could be key factors in supporting an economy capable of competing at the international level. Results from the NAEP assessments of mathematics and science in 1986 are similar to those from the most recent reading and writing assessments.

Results from the NAEP geography assessment suggest that twelfth grade students can identify most major countries on a map, and are aware of environmental problems and some current events. But the extent of their knowledge is rather limited. For example, while a large percentage could identify the Soviet Union and Canada on a map, and again a majority were aware of ecological problems, fewer than half could recognize an effect of a thermonuclear war, and only half appeared to know an effect of the melting of ice caps. Additionally, fewer than two-thirds of the twelfth grade students assessed reported having taken a geography course at any level in high school. In short, the twelfth graders exhibited some knowledge of geography, but that knowledge appeared to lack depth.

In international assessments in both mathematics and science, American students compare poorly. In mathematics, American students placed last out of six countries. In science, American students' scores placed them well below the mean, and in the lowest group of countries.

College entrance examination scores have also been stagnant the last few years, especially when compared to scores 20 years ago.

In reviewing the indicators in this section, it should be noted that group average scores cannot show how individual students have performed. Indeed, some American students scored better on mathematics and science than some students from other countries. Many students scored above the range in which their age group placed. Nevertheless, there are some consistent aggregate trends. In brief, assessment results in most subjects suggest that scores have not changed greatly during the decade. And, additionally, these average scores appear to be fairly low. Minorities seem to be improving significantly, but their scores are still quite low relative to their white counterparts.

B. Student Performance

Indicator 1:4 Reading performance by 9-, 13-, and 17-year-olds: 1971–1988

Reading skills are basic to the educational process. When students lag in their reading achievement, they may find it difficult to benefit from other aspects of the curriculum. In the future, the poor reader might also find it difficult to participate effectively in an economy requiring increasingly sophisticated job skills.

- **In general, reading performance did not improve between 1984 and 1988. The exception was for black 13- and 17-year-olds.**
- **In 1988, among 17-year-olds, no racial/ethnic group had an average proficiency at the adept or advanced level, but the white average was very close to the adept level.**
- **Since 1971, black reading scores have risen considerably at all three age levels, while the scores of whites have remained the same. Only for 17-year-olds have reading scores of Hispanics improved significantly since 1975.**
- **As a result, while scores of both blacks and Hispanics remain well below those of whites at all age levels, the gap is narrowing, especially for blacks.**

General reading proficiency means

	Age 9				Age 13				Age 17			
Year	All races	White	Black	Hispanic	All races	White	Black	Hispanic	All races	White	Black	Hispanic
	Scale score				Scale score				Scale score			
1971	* 207.3	213.8	* 170.0	—	255.2	260.9	* 222.4	--	* 285.4	291.4	* 238.6	—
1975	210.2	216.6	181.3	182.8	256.0	262.1	* 225.7	232.5	* 286.1	293.0	* 240.4	* 252.2
1980	214.8	221.3	189.2	189.5	258.5	264.4	* 232.4	236.8	285.8	293.1	* 242.5	260.7
1984	211.0	218.3	185.7	187.2	257.1	262.6	* 236.0	239.6	288.8	295.6	264.2	268.1
1988[1]	211.8	217.7	188.5	193.7	257.5	261.3	242.9	240.1	290.1	294.7	274.4	270.8

— Not available.

* Shows a statistically significant difference from 1988.

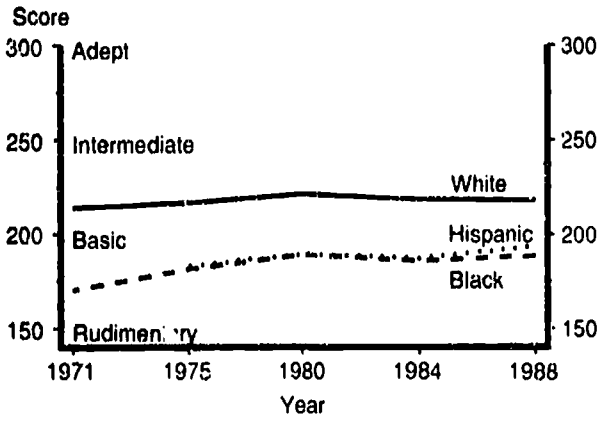
[1] Based on the 1988 reading bridge to 1984.

NOTE: Reading Proficiency Scale
Level 150 = **Rudimentary** - Can carry out simple discrete reading tasks
Level 200 = **Basic** - Can understand specific or sequentially related information
Level 250 = **Intermediate** - Can search for specific information, interrelate ideas, and make generalizations
Level 300 = **Adept** - Can find, understand, summarize, and explain relatively complicated information
Level 350 = **Advanced** - Can synthesize and learn from specialized reading materials

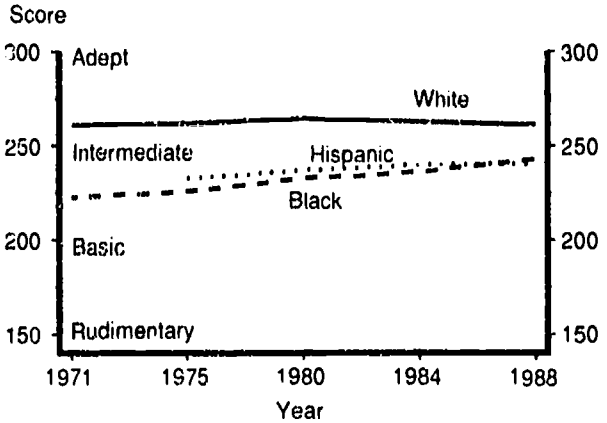
SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–1988: Trends From the Nation's Report Card*, 1990.

Chart 1:4 Reading performance, by age and by race/ethnicity: 1971–1988

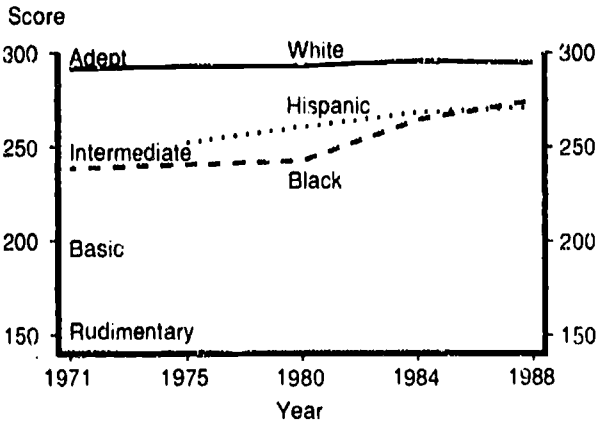
9-year-olds



13-year-olds



17-year-olds



SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971–1988: Trends From the Nation's Report Card*, 1990.

B. Student Performance

Indicator 1:5 Writing performance in grades 4, 8, and 11

Effective writing is fundamental for educational success. In 1988, a nationally representative sample of students in grades 4, 8, and 11 were assessed for writing skills. Students were evaluated on informative, persuasive, and imaginative writing.

- **Levels of writing performance in 1988 were approximately the same as in 1984. In fact, there has been little change since 1974.**
- **Whites continue to score higher than blacks or Hispanics at all 3 grade levels.**
- **However, black and Hispanic students appeared to show consistent improvement at all three grade levels, although the changes were not statistically significant.**

Average NAEP Writing Assessment scores[1]: 1984 and 1988

Year	Total	White	Black	Hispanic
		Grade 4		
1984	170.5	177.2	148.2	159.7
1988	173.3	180.0	150.7	162.2
		Grade 8		
1984	212.4	217.9	188.3	194.2
1988	208.2	* 213.1	190.1	197.2
		Grade 11		
1984	223.0	229.1	204.2	200.6
1988	220.7	225.3	206.9	202.0

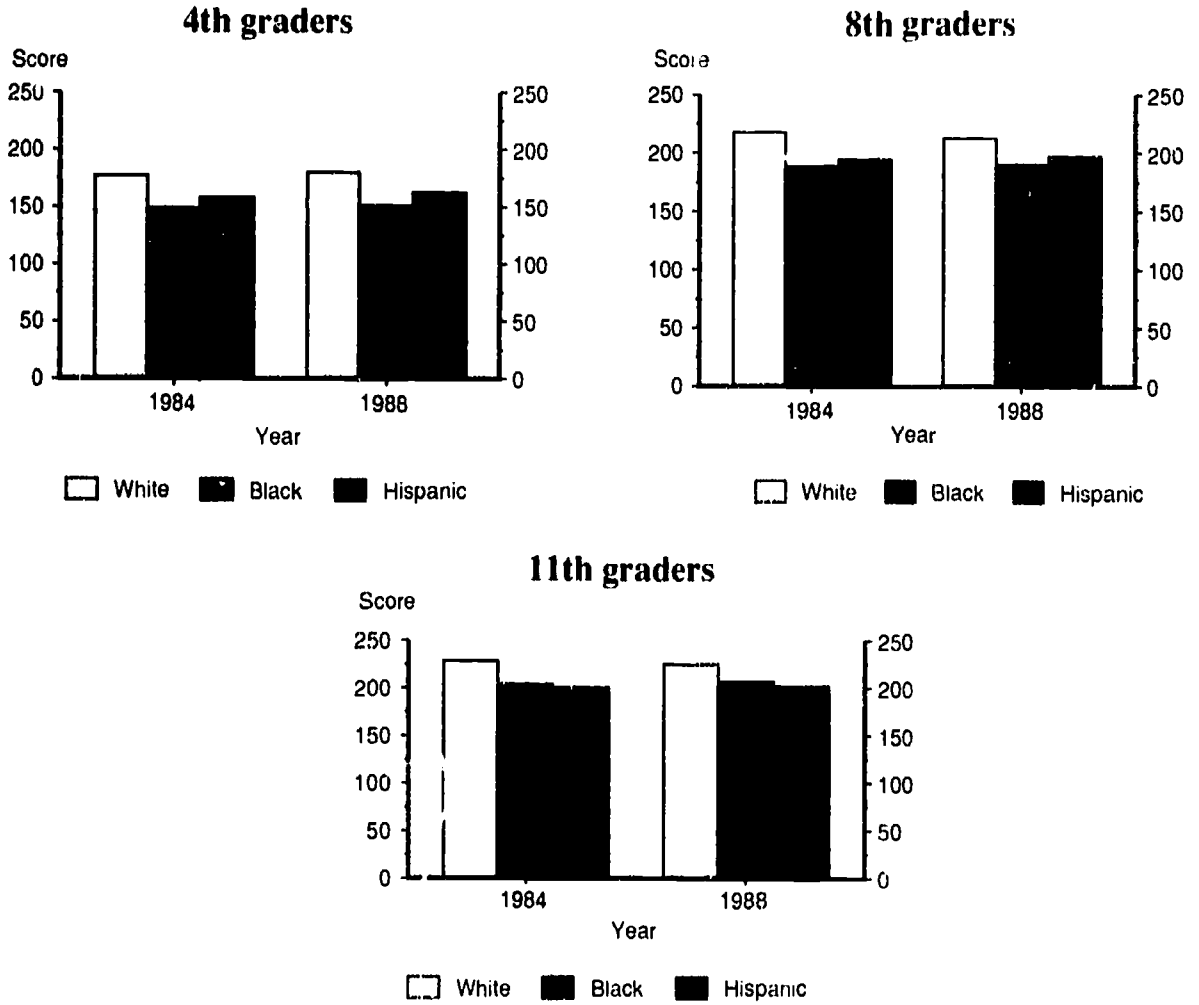
* Statistically significant at the .05 level.

[1] The Average Response Method (ARM) provides an estimate of average writing achievement for each respondent as if he or she took 11 of the 12 writing tasks given, and as if NAEP had computed average achievement across that set of tasks.

NOTE: Writing Proficiency Chart
Level 100 = **Unsatisfactory** - Failed to reflect a basic understanding of the task
Level 200 = **Minimal** - Recognized the elements needed to complete the task, but were not managed well enough to insure the intended purpose
Level 300 = **Adequate** - Included features critical to accomplishing the purpose of the task and were likely to have the intended effect
Level 400 = **Elaborated** - Beyond adequate, reflecting a higher level of coherence and elaboration.

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984-1988: Findings From the Nation's Report Card*, 1990.

Chart 1:5 **Writing performance in grades 4, 8, and 11, by race/ethnicity: 1984 and 1988**



SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984–1988. Findings From the Nation's Report Card*, 1990.

B. Student Performance

Indicator 1:6 Mathematics and science proficiency

Mathematic and scientific knowledge are considered vital to cultural well-being and to our economic competitiveness. Declining test scores in mathematics and science have been an educational concern since the late 1960s when the National Assessment of Educational Progress (NAEP) began periodically assessing students' knowledge, skills, and attitudes. During this period, student proficiency has remained low.

- **In 1986, mathematics proficiency was about the same as it had been in 1973 for all three age groups.**
- **Science proficiency, for 13- and 17-year-olds, was lower in 1986 than it was in 1970.**
- **Overall, levels of mathematics and science proficiency remain low; most students, even at age 17, are unable to perform at the upper levels of the scale.**

Average mathematics proficiency of 9-, 13-, and 17-year-old students: 1973-1986

	Age 9	Age 13	Age 17
1973[1]	219.1	266.0	304.4
1978	218.6	* 264.1	300.4
1982	219.0	268.6	* 298.5
1986	221.7	269.0	302.0

Average science proficiency of 9-, 13-, and 17-year-old students: 1970-1986

	Age 9	Age 13	Age 17
1970	224.9	* 254.9	* 304.8
1973	* 220.3	249.5	* 295.8
1978	* 210.9	* 247.4	289.6
1982	220.9	250.2	* 283.3
1986	224.3	251.4	288.5

* Statistically significant difference from 1986 at the 0.05 level.

[1] The mathematics assessment was not included in the scaling of the NAEP trend data. However, a rough estimate of the 1973 mean level of student mathematics proficiency was computed by NAEP.

NOTE: Mathematics Proficiency Scale

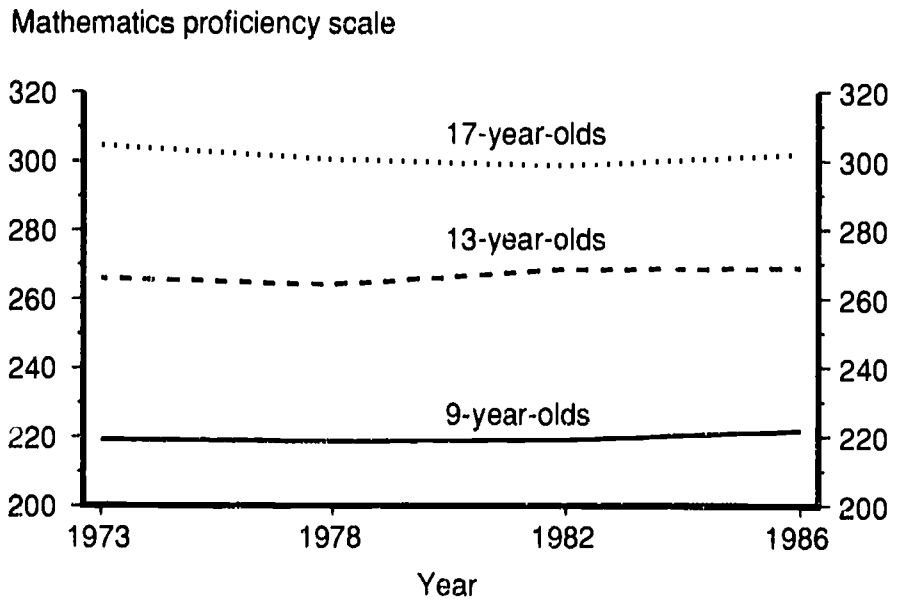
Level 150 = Simple arithmetic facts
Level 200 = Beginning skills and understanding
Level 250 = Basic operations and one-step problem solving
Level 300 = Moderately complex procedures and reasoning
Level 350 = Multistep problem solving and algebra.

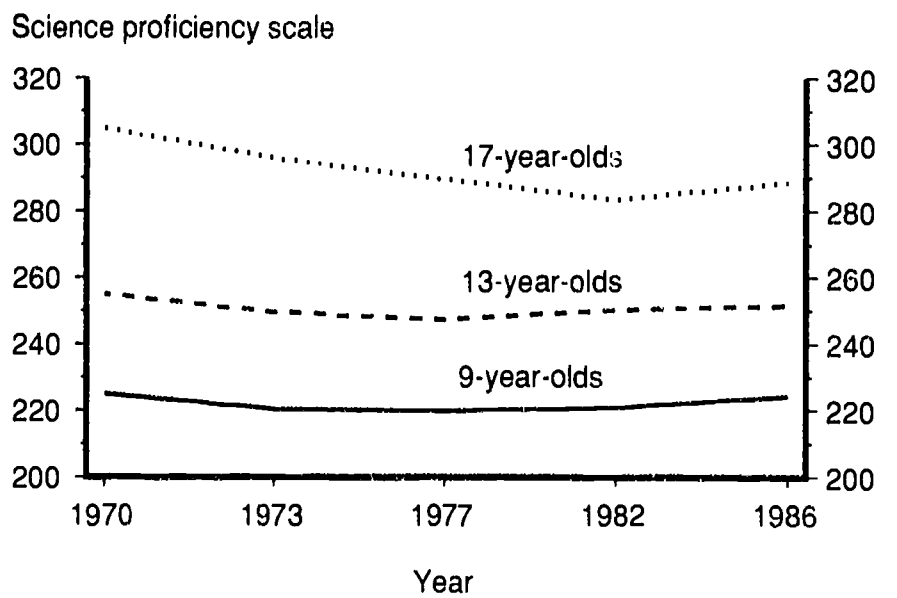
Science Proficiency Scale

Level 150 = Knows everyday science facts
Level 200 = Understands simple scientific principles
Level 250 = Applies basic scientific information
Level 300 = Analyzes scientific procedures and data
Level 350 = Integrates specialized scientific information.

SOURCE: National Assessment of Educational Progress, *The Mathematics Report Card: Are We Measuring Up?*,1988; National Assessment of Educational Progress, *The Science Report Card, Elements of Risk and Recovery*, 1988.

Chart 1:6 Trends in average mathematics and science proficiency





SOURCE: National Assessment of Educational Progress, *The Mathematics Report Card: Are We Measuring Up?*,1988; National Assessment of Educational Progress, *The Science Report Card, Elements of Risk and Recovery*, 1988.

B. Student Performance

Indicator 1:7 International performance in mathematics and science

Mathematics and science abilities are important outcomes of schooling. In an increasingly technological world, the mathematics and science skills of a nation's workers may be a crucial element of economic competitiveness. Workers with better mathematical and science skills may well be more productive workers.

- **In the 1988 International Assessment of Educational Progress, 13-year-olds from the United States scored in the lowest group in mathematics and science proficiency.**
- **In mathematics, 40 percent of the Korean students demonstrated the ability to deal with complex concepts, compared to 9 percent of the American students. Similarly, 33 percent of the Korean students could apply intermediate scientific principles, compared to 7 percent of the American students (Tables 1:7-1 and 1:7-3).**

Average mathematics and science proficiencies of 13-year-old students in six countries/provinces

Mathematics			Science		
Group	Country/province	Proficiency level	Group	Country/province	Proficiency level
1	Korea	567.8	1	British Columbia	551.3
				Korea	549.9
2	Quebec (French)	543.0			
	British Columbia	539.8	2	United Kingdom	519.5
	Quebec (English)	535.8		Quebec (English)	515.3
	New Brunswick (English)	529.0		Ontario (English)	514.7
				Quebec (French)	513.4
3	Ontario (English)	516.1		New Brunswick (English)	510.5
	New Brunswick (French)	514.2		Spain	503.9
	Spain	511.7			
	United Kingdom	509.9	3	United States	478.5
	Ireland	504.3		Ireland	469.3
				Ontario (French)	468.3
4	Ontario (French)	481.5		New Brunswick (French)	468.1
	United States	473.9			

Note: Mathematics Proficiency Scale

Level 300= Simple addition and subtraction
Level 400= Basic operations to solve simple problems
Level 500= Intermediate level skills to solve two-step problems
Level 600= Measurement and geometry concepts to solve more complex problems
Level 700= More advanced mathematical concepts

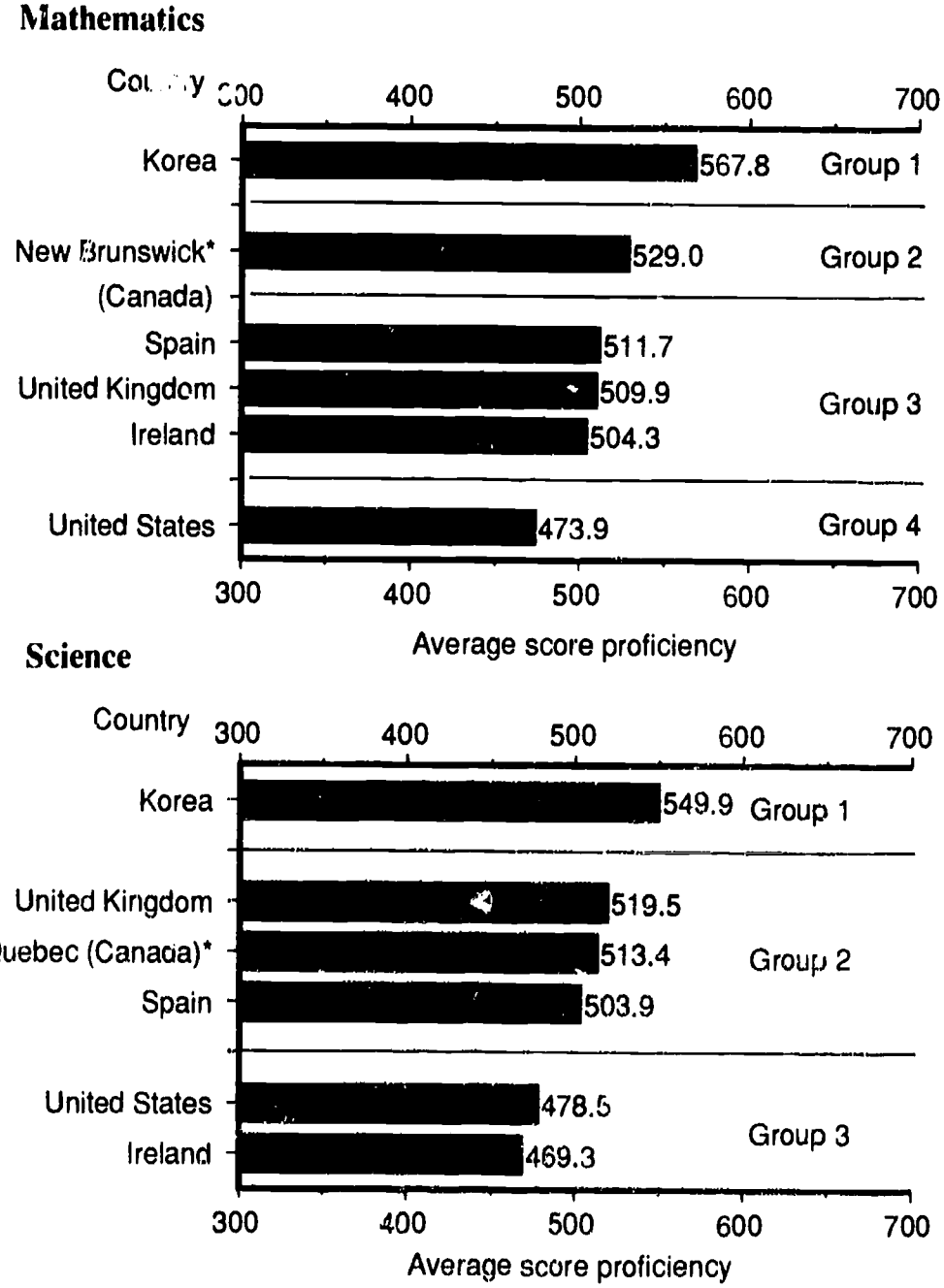
Science Proficiency Scale

Level 300= Knows everyday science facts
Level 400= Understands and applies simple scientific principles
Level 500= Uses scientific procedures and analyzes scientific data
Level 600= Understands and applies scientific knowledge and principles
Level 700= Integrates scientific information and experimental evidence

NOTE: Differences in performance between the groups are statistically significant at the 0.05 level; differences in performance within groups are not statistically significant.

SOURCE: International Assessment of Educational Progress, *A World of Differences: An International Assessment of Mathematics and Science*, 1989.

Chart 1:7 **Average mathematics and science proficiency of 13-year-old students in six countries: 1988**



* New Brunswick (English) and Quebec (French) are the median groups of the seven groups assessed in 4 Canadian provinces in mathematics and science, respectively.

SOURCE: International Assessment of Educational Progress, *A World of Differences, An International Assessment of Mathematics and Science*, 1989.

B. Student Performance

Indicator 1:8 Geography learning of high school seniors: 1988

Geography education spans a variety of content and skill areas, providing instruction in map and globe skills, knowledge of themes in physical and cultural geography, and examinations of the interrelationships among various geographic and social factors: exploration, migration, the cultural landscape, and demographic characteristics. Until recently, there was very little information concerning what students actually knew about geography, particularly in areas that go beyond their ability to locate certain countries, cities, or landscape features. In 1988, the National Assessment of Educational Progress' (NAEP) assessed high school seniors in geography. The results are presented below.

- **Most high school seniors correctly answered questions about the location of countries. For example, 87 percent correctly identified Canada, and 85 percent recognized the Soviet Union on a world map.**
- **Students performed relatively well on questions about events and locations featured in the news. Three-fourths of the students knew that the United States was a major exporter of grain, and 84 percent correctly identified countries in the Middle East.**
- **Male twelfth graders produced an average scale score of about 301, while females twelfth graders produced an average scale score of almost 286.**
- **Less than two-thirds of the students demonstrated that they were familiar with the concepts of latitude and longitude.**
- **Less than two-thirds of the 12th grade students participating in the NAEP geography assessment reported having taken a geography course at any grade in high school.**

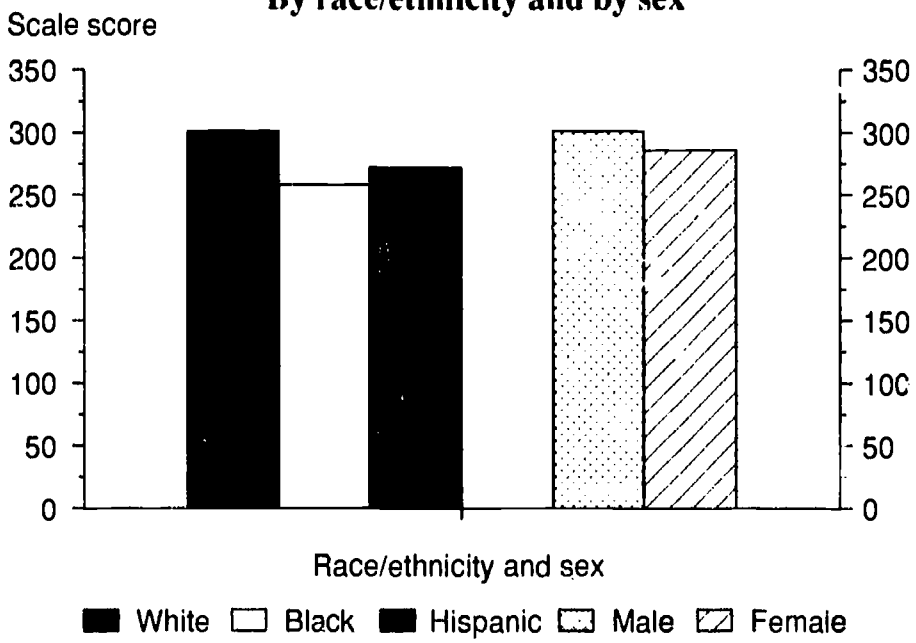
Average geographic proficiency of seniors in high school, by sex, race/ethnicity, and parental education: 1988

Characteristic	Scale score	Characteristic	Scale score
Sex			
Male	301.2	Parental education	
Female	285.7	Not graduated high school	267.0
		Graduated high school	283.5
Race/ethnicity		Educated past high school	294.2
White	301.1	Graduated college	305.3
Black	258.4		
Hispanic	271.8		

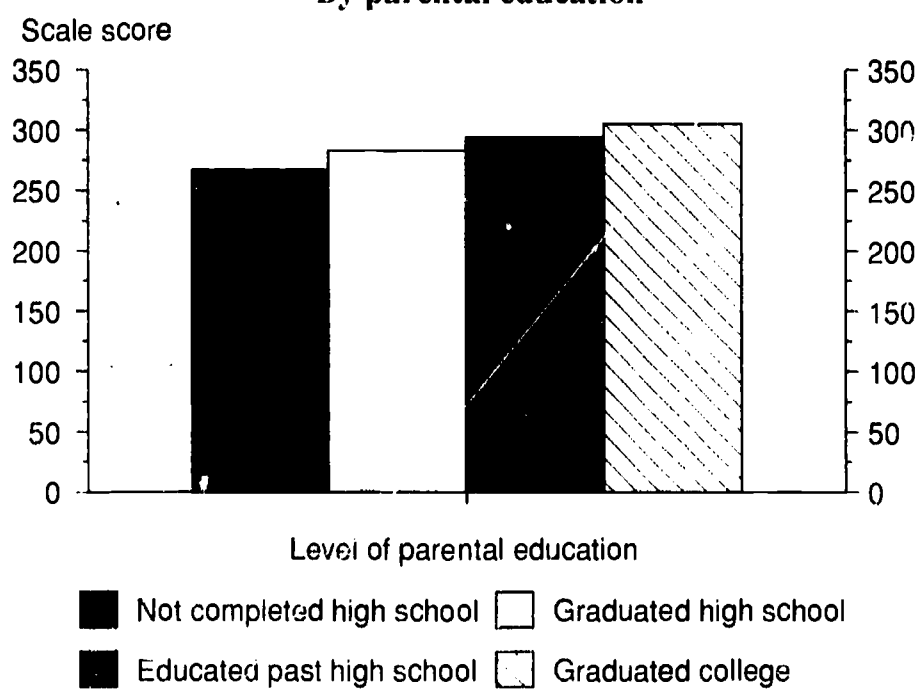
SOURCE: The National Assessment of Educational Progress, *The Geography Learning of High School Seniors*, 1990.

Chart 1:8 **Average geography proficiency for 12th graders: 1988**

By race/ethnicity and by sex



By parental education



SOURCE: The National Assessment of Educational Progress, *The Geography Learning of High School Seniors*, 1990.

B. Student Performance

Indicator 1:9 College entrance examination scores

The Scholastic Aptitude Test (SAT) and the American College Testing Program Assessment (ACT) are the tests taken most frequently by college-bound students. Both are designed to predict success in the freshman year in college. The SAT tests general verbal and quantitative skills, while the ACT is more subject-matter oriented.

- **After years of decline, SAT scores began rising in 1982. Scores have remained fairly stable since 1985 (Table 1:9-1).**
- **After a long decline, ACT scores began rising between 1984 and 1986. Since 1986, composite scores have hovered between 18.8 and 18.6.**
- **SAT test scores in the 1980s have increased as the proportion of test-takers has increased.**

SAT and ACT scores by year, and by the ratio of the percent of test-takers to high school graduates: 1970–1989

School year ending	SAT total[1]	Verbal[1]	Math[1]	Percent taking SAT[2]	ACT composite score[3]	English[3]	Math[3]	Social studies[3]	Natural sciences[3]	Percent taking ACT[4]
	Average test scores				Average test scores					
1970	948	460	488	—	19.9	18.5	20.0	19.7	20.8	—
1972	937	453	484	—	19.1	17.9	18.8	18.6	20.6	—
1974	924	444	480	32.1	18.9	17.9	18.3	18.1	20.8	—
1976	903	431	472	31.8	18.3	17.5	17.5	17.0	20.8	—
1978	897	429	468	31.6	18.5	17.9	17.5	17.1	20.9	—
1980	890	424	466	32.6	18.5	17.9	17.4	17.2	21.1	—
1982	893	426	467	33.0	18.4	17.9	17.2	17.3	20.8	—
1984	897	426	471	34.9	18.5	18.1	17.3	17.3	21.0	—
1986	906	431	475	37.9	18.8	18.5	17.3	17.6	21.4	27.6
1988	904	428	476	40.6	18.8	18.5	17.2	17.4	21.4	30.2
1989	903	427	476	39.1	18.6	18.5	17.2	17.4	21.4	30.8

— Not available.

[1] For the SAT, averages for 1972 through 1988 are based on college-bound seniors.

[2] The percent taking the SAT is the ratio of the number of individuals taking the SAT in that year to the number of high school graduates.

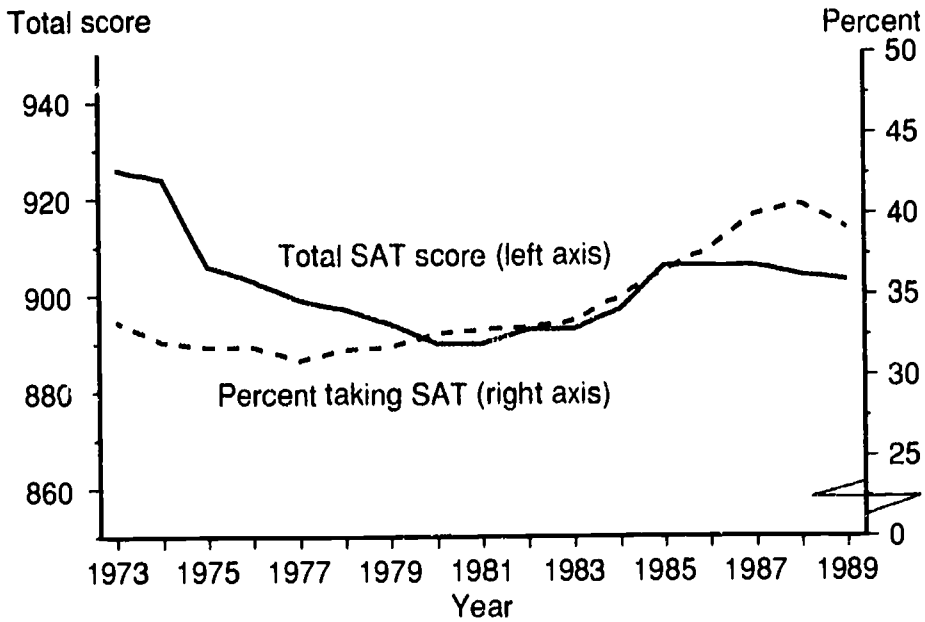
[3] For the ACT, averages for 1985 through 1988 are based on college-bound seniors.

[4] The percent taking the ACT is the ratio of the number of individuals taking the ACT in that year to the number of high school graduates.

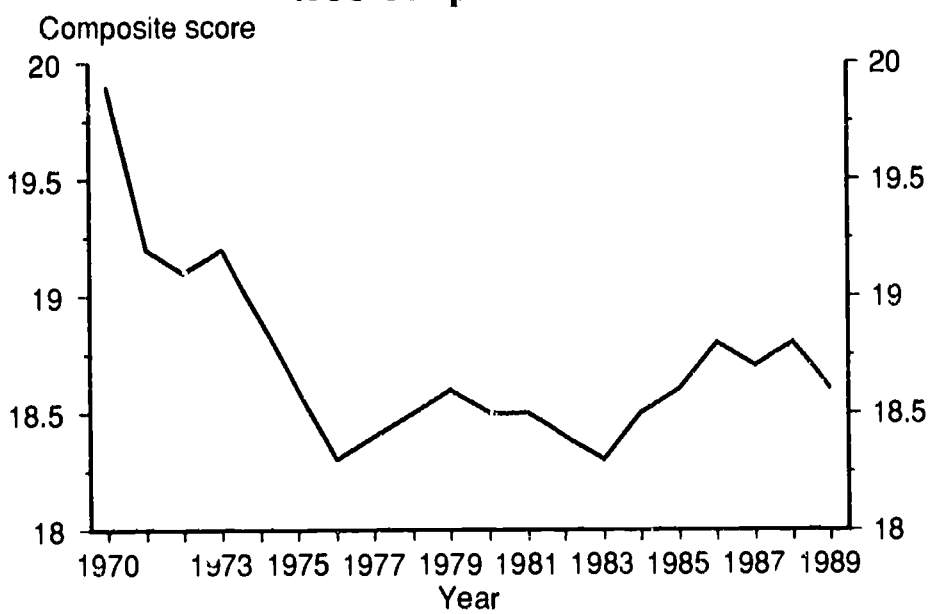
SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years (copyright by College Entrance Examination Board, all rights reserved); The American College Testing Program, *The High School Profile Report, Normative Data*, various years.

Chart 1:9 Trends in college entrance examination scores

SAT total score, and the percent of total SAT test-takers in relation to high school graduates



ACT Composite Score



SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years, (copyright by College Entrance Examination Board, all rights reserved); The American College Testing Program, *The High School Profile Report, Normative Data*, various years.

C. Economic Outcomes

Education is an investment in human skills. Like all investments, it involves both a cost and a return. The cost of finishing high school is quite low, for it principally includes the earnings given up by not working or not working full time while still in the first twelve years of school. In this case, the foregone earnings are the earnings of high school dropouts 16-19 years old, which are low. In contrast, the returns come in many forms. Some are pecuniary, others are nonpecuniary. Some are related to the labor market, others are not. Among the returns related to the labor market are better employment opportunities, jobs that are less sensitive to general economic conditions, better opportunities to participate in employer-provided training, and higher earnings. Other returns not related to the labor market include greater interest and participation in civic affairs, better health and longer life, and reduced criminal behavior.

The costs and returns to investing in education change over time,* which affects the incentive to finish high school. The purpose of the measures presented in this section are to provide indicators of changes in the rewards to finishing high school, or conversely the penalties of not finishing.

These indicators suggest some general conclusions. First, the labor market opportunities of high school graduates has consistently been better than of those who do not finish. For males, 87 percent of high school graduates 25-34 years old were employed in 1987 versus 76 percent of those who had not finished high school. For females, the figures were 67 and 47 percent, an even larger disparity. On the other hand, for males there appeared to be a downward drift in labor market opportunities for both high school graduates and dropouts, although the decline was larger for the latter group. For example, the employment rate of male high school graduates 25-34 years old was an average of 91.4 percent between 1971 and 1979; the rate was always an average of 85.2 percent between 1980 and 1988.

Second, the earnings incentive to finish high school as reflected in the earnings penalty for not finishing was between 20 and 25 percent. The size of the earnings disadvantage was similar for both males and females who do not finish high school.

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* See Murphy, Kevin and Finis Welch. "Wage Premiums for College Graduates: Recent Growth and Possible Explanations." *Educational Researcher*, May 1989 for a more detailed presentation of changes between 1964 and 1986 in the relative earnings of workers with different levels of education and experience by sex and race.

C. Economic Outcomes

Indicator 1:10 Employment of young adults

The percentage of a population group with jobs is influenced by a variety of factors. First, it depends on the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, and, second, it depends on the willingness of these individuals to take jobs at the going wage rate. The higher the proportion employed, the better are their labor market opportunities relative to other things they could do, and vice versa.

- **Employment rates are higher in groups with more education.**
- **During the 1980s, the proportion of males with 12 years of schooling or less who were employed was consistently lower than it was during the 1970s.**
- **Among women 25-34 years old, the employment rate of both those with 12 years of schooling and those with 9 to 11 years of schooling rose between 1971 and 1988. However it rose much less for those who did not finish high school.**

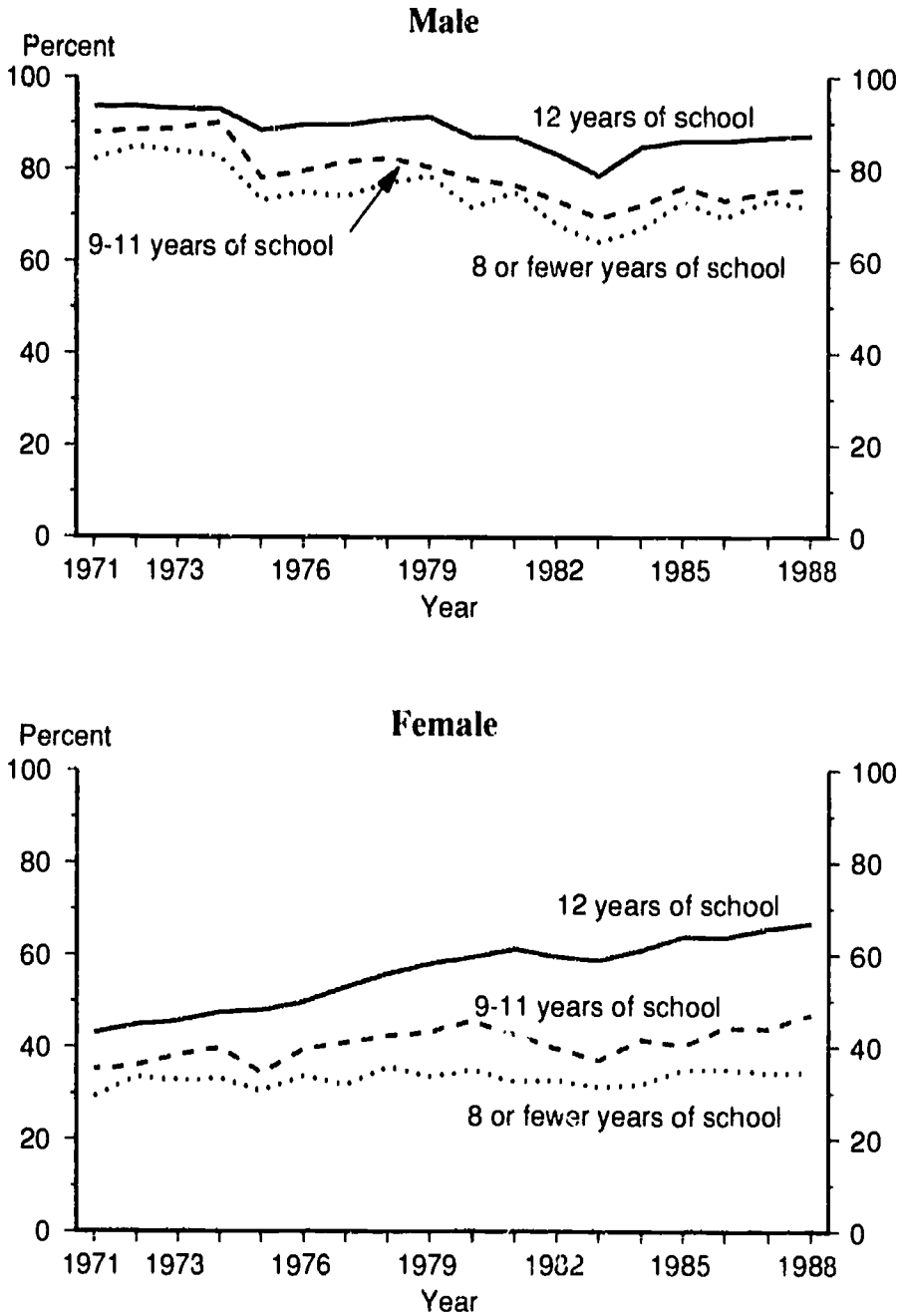
Percent of population 25-34 years old employed, by years of schooling completed and sex: 1971–1988

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
			Percent			
1971	82.2	87.9	93.6	29.3	35.2	43.1
1972	85.0	88.5	93.7	33.5	36.1	44.9
1973	83.9	88.8	93.1	32.8	38.4	45.7
1974	82.9	90.2	93.0	33.3	39.8	47.6
1975	73.3	78.1	88.4	30.5	34.5	48.0
1976	74.9	79.6	89.6	33.7	39.5	49.8
1977	74.2	81.5	89.5	31.8	41.0	53.0
1978	77.0	82.4	90.8	35.6	42.4	55.9
1979	78.6	80.5	91.3	33.6	43.2	58.0
1980	71.6	77.7	87.0	35.0	45.6	59.5
1981	75.0	76.7	86.9	32.5	42.7	61.3
1982	68.0	73.2	83.3	32.8	39.7	59.6
1983	64.2	69.3	78.6	31.3	37.1	58.8
1984	67.0	72.2	84.8	31.7	41.5	61.0
1985	73.0	76.0	86.1	35.1	40.3	63.9
1986	69.4	73.3	86.2	35.2	44.1	63.8
1987	73.3	75.0	86.8	34.3	44.0	65.6
1988	71.4	75.5	87.2	34.5	46.9	66.8

NOTE: See volume 2, *Indicator 2:13* for employment rates of college graduates. See supplemental note 1:10 for a comparison of the employment to population ratio, presented in this table, to other labor force statistics

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Chart 1:10 Percent of population 25-34 years old employed: 1971–1988



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

C. Economic Outcomes

Indicator 1:11 Earnings of young adults

Wages and salaries are influenced by many factors. Among these are the employer's perception of the productivity of employees with different levels of education and the availability of workers with different levels of education. They is also affected by economic conditions in the industries that typically employ workers with different levels of education. *Annual* earnings are influenced by the number of weeks worked in a year and the usual hours worked each week. The ratio of annual earnings of high school dropouts to high school graduates is affected by all these factors; it is a measure of the earnings disadvantage of not finishing high school. Its reciprocal is a measure of the (money) rate of return to the investment in a high school education.

- **The earnings disadvantage of males 25-29 years old with 9-11 years of schooling relative to their counterparts with 12 years of schooling was about 25 percent in 1986 and 1987. For females the disadvantage was similar.**
- **Between 1982 and 1987, the earnings disadvantage of males 25-29 years old with less than 12 years of schooling was greater than it had been between 1975 and 1981.**

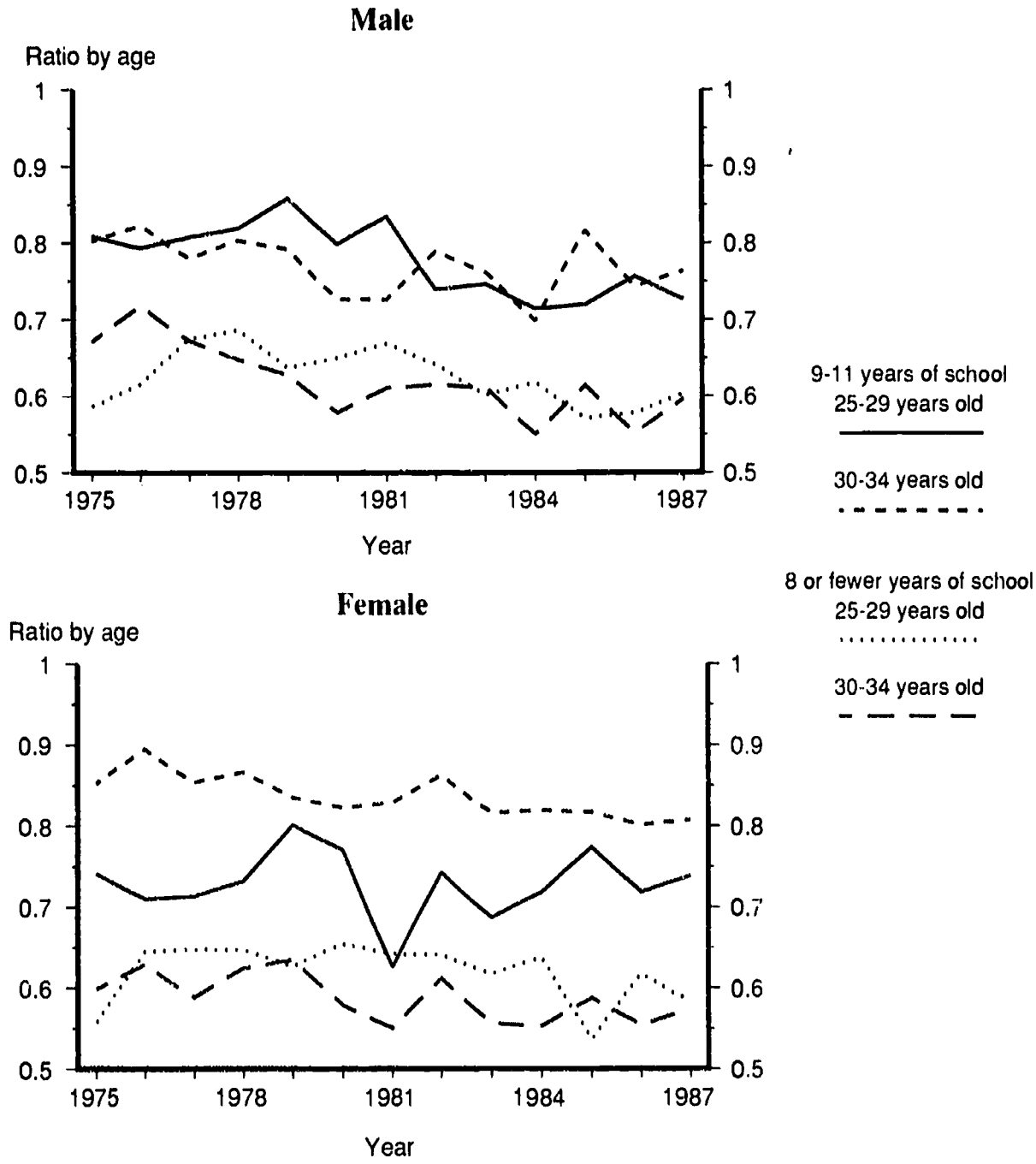
Ratio of mean annual earnings of all workers with 8 or fewer and 9 to 11 years of schooling to those with just 12 years of schooling, by age and sex: 1975–1987

	Male				Female			
	8 or fewer years of school		9 to 11 years of school		8 or fewer years of school		9 to 11 years of school	
Year	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old
1975	0.586	0.671	0.809	0.802	0.557	0.598	0.741	0.852
1976	0.616	0.718	0.793	0.823	0.645	0.629	0.710	0.895
1977	0.675	0.672	0.807	0.780	0.648	0 588	0.713	0.854
1978	0.687	0.648	0.819	0.803	0.647	0.625	0.732	0.866
1979	0.637	0.627	0.858	0.792	0.627	0.635	0.801	0.835
1980	0.650	0.579	0.799	0.727	0.655	0.579	0.770	0.823
1981	0.669	0.611	0.834	0.726	0.642	0.550	0.626	0.829
1982	0.641	0.615	0.739	0.788	0.641	0.612	0.742	0.862
1983	0.601	0.611	0.746	0.762	0.617	0.556	0.687	0.816
1984	0.618	0.550	0.714	0.699	0.637	0.553	0.718	0.819
1985	0.571	0.613	0.719	0.816	0.537	0.587	0.773	0.817
1986	0.578	0.552	0.756	0.743	0.617	0.554	0.718	0.801
1987	0.603	0.596	0.727	0.764	0.583	0.574	0.738	0.807

NOTE: See volume 2, *Indicator 2:15* for comparisons of the earnings of college graduates to high school graduates.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-60, "Money Income of Families and Persons: March . . .," various years.

Chart 1:11 **Ratio of mean annual earnings of all workers with 8 or fewer and 9 to 11 years of schooling to those with just 12 years of schooling, by age and sex: 1975–1987**



SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-60, "Money Income of Families and Persons: March . . .," various years.

D. Student Participation in Various Curricula

This section presents data on student participation in various curricula. Specifically, figures are given on enrollments in federally supported programs for handicapped students, and course-taking patterns of American students during the 1980s.

Since 1977, the U.S. Department of Education has presented an annual report to Congress on the implementation of the Education of the Handicapped Act (PL.-94-142). A few patterns have emerged. Both the number and percentage of students enrolling in the federally funded programs rose until the mid-1980s. Since then, the number of children has stabilized. But participation within the Federal programs has varied widely. For example, in 1977, learning-disabled children composed only 1.8 percent of total enrollment. By 1988, learning-disabled children composed almost 5 percent of total enrollment. Moreover, by 1988, learning-disabled children composed 43.4 percent of all handicapped children enrolled in federally supported programs for the handicapped, up from 21.6 percent in 1977. The increases in this category account for almost all of the increases experienced by the federally supported programs for the handicapped. During the same time period, however, as a percent of all students enrolled in federally supported programs for the handicapped. the share of children identified as mentally retarded has been almost cut in half—from 26 percent in 1977 to 13.1 percent in 1988. Similarly, the share of children identified as speech-impaired has declined substantially, from 35.3 percent in 1977 to 21.4 percent in 1988.

In 1983, the U.S. Department of Education published the landmark report *A Nation at Risk*. In it, suggestions were made to strengthen instruction in core subject areas. It suggested that all high school graduates have at least 0.5 credits of computer science, 3 credits in social studies, 3 credits in science, 3 credits in mathematics, and 4 credits in English. Most high school graduates in 1982 fell below this standard. But by 1987, high school graduates were taking more coursework in the core subjects. For example, significant increases occurred in student course-taking patterns in mathematics, science.

D. Student Participation in Various Curricula

Indicator 1:12 Special education enrollment in federally supported programs

The Education of the Handicapped Act, enacted by Congress in 1975, ensures the availability of "free and appropriate education" to all children with handicapping conditions. Examining changes in the number and distribution of such students helps educators and policymakers to assess compliance with this mandate and to study resource needs.

- **The increase in the number of children served under The Education of the Handicapped Act can be attributed to the increase in the number of children being classified as learning disabled.**
- **Of the total of students served by programs mandated in the Education of the Handicapped Act, the percentage of students classified as learning disabled has risen from 22 percent in 1977 to 43 percent in 1988, the largest increase of any group.**
- **The percentage of students classified as mentally retarded has dropped from 26 percent in 1977 to about 13 percent in 1988.**
- **There was a large increase in children served by the Education of the Handicapped Act from 1977 to the mid-1980s. Since then the percentage of children served has been fairly stable.**

Children served in federally supported programs for the handicapped, by type of handicap: 1977–1988

Type of handicap*	1977	1979	1981	1983	1985	1987	1988
	Percentage distribution						
Learning disabled	21.6	29.1	35.3	40.9	42.4	43.8	43.4
Speech impaired	35.3	31.2	28.2	26.6	26.1	26.0	21.4
Mentally retarded	26.0	23.2	20.0	17.8	16.1	14.7	13.1
Seriously emotionally disturbed	7.7	7.7	8.4	8.3	8.6	8.8	8.4
Type of handicap	Number of children served as a percent of total enrollment						
All conditions	8.3	9.1	10.1	10.7	10.9	10.9	11.1
Learning disabled	1.8	2.6	3.5	4.3	4.6	4.8	4.8
speech impaired	2.9	2.8	2.8	2.8	2.8	2.8	2.3
Mentally retarded	2.1	2.1	2.0	1.9	1.7	1.6	1.4
Seriously emotionally disturbed	0.6	0.7	0.9	0.9	1.0	1.0	0.9

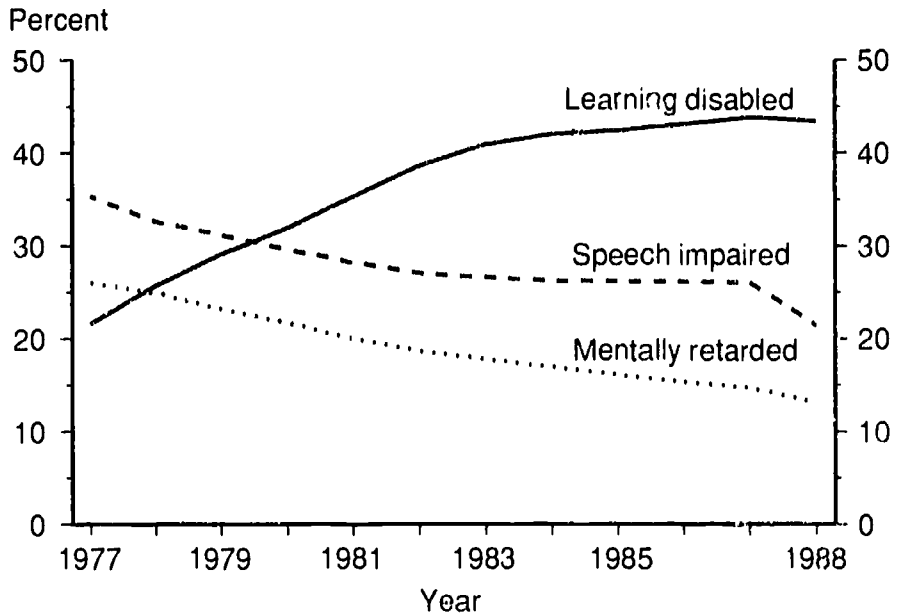
* Not all handicapping categories are displayed; thus details do not add to 100. See Table 1:12-1 for additional detail.

NOTE: Figures include children served under Chapter I and Education of the Handicapped Act.

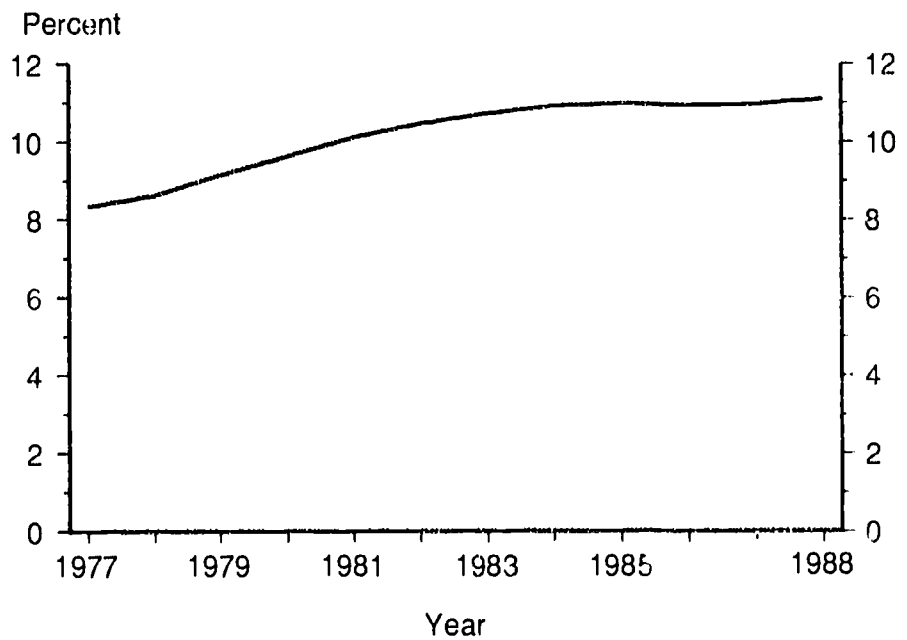
SOURCE: U.S. Department of Education, Office of Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Handicapped Act*, various years; National Center for Education Statistics, Common Core of Data survey; and unpublished data.

Chart 1:12 Special education enrollment in federally supported programs

The percent of learning disabled, speech impaired, and mentally retarded as a percent of the total number served by the Education of the Handicapped Act: 1977–1988



Percent of total enrollment enrolled in federally supported programs for the handicapped: 1977–1988



SOURCE: U.S. Department of Education, Office of Education and Rehabilitative Services, *Annual Report to Cong on the Implementation of the Handicapped Act*, various years; National Center for Education Statistics, Common Data survey; and unpublished data.

D. Student Participation in Various Curricula

Indicator 1:13 Course-taking patterns of American students

In 1983, The National Commission on Excellence in Education issued the report *A Nation at Risk*, recommending that schools adopt more rigorous and measurable standards and have higher expectations for academic performance and student conduct. Specific recommendations were made for an increased number of graduation credits in mathematics, English, history, science, foreign Languages, computer science, and social studies.

- **Changes in average number of credits earned by graduates, based on transcript studies conducted in 1982 and 1987, signal a positive trend.**
- **Between 1982 and 1987, there were significant increases in credits earned in mathematics, English, history, science, foreign languages, and computer science. Social studies increased, but not significantly.**
- **Significant decreases in average number of credits earned occurred in non-occupational vocational education.**

Average number of credits earned in various subject fields: 1982, 1987, and *A Nation at Risk* recommendations

Subject field	*A Nation at Risk* recommendations	Average credits earned by graduates		
		1982	1987	Change 1982-87
Computer science	0.5	0.11	0.43	* 0.32
Foreign languages[1]	2.0	1.05	1.46	* 0.41
Social studies	3.0	1.42	1.43	0.01
Science	3.0	2.19	2.59	* 0.40
Mathematics	3.0	2.54	2.97	* 0.43
English	4.0	3.80	4.03	* 0.23
History	—	1.69	0.90	* 0.22
Vocational education	—	3.98	0.65	* -0.33
Nonoccupational	—	1.84	0.64	* -0.20
Occupational	—	2.14	2.01	[2] -0.13

* Differences between 1982 and 1987 that are significant at the $p < .05$ level.

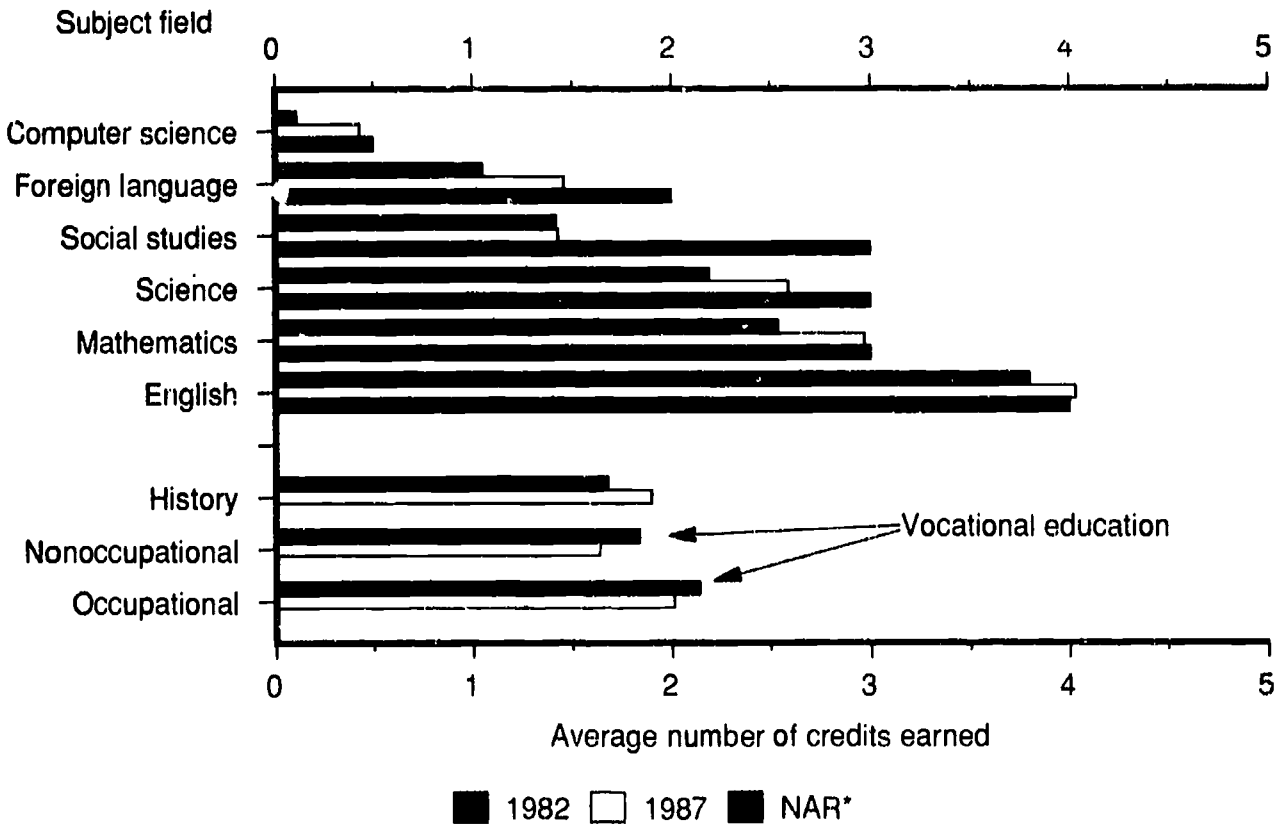
[1] The *A Nation at Risk* foreign language recommendation is for college-bound seniors only.

[2] Significance for this subject field is not available.

NOTE: Some values reported here for 1982 credits earned differ from the values reported in the 1986 *Condition of Education*. The differences are due to adjustments made in order to make the 1982 and 1987 samples comparable for statistical comparisons.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript study, unpublished tabulations.

Chart 1:13 Average number of credits earned in various subject fields: 1982–1987



*Recommended by *A Nation at Risk*, 1983.
NOTE: No recommendations for history and vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript study, unpublished tabulations.

II. Context

E. Size and Growth of the Schools

Section E presents data on enrollment. Trends over time are examined by level, control (public or private), and, in one case, by attendance status (full-day or part-day) and race/ethnicity. Determining who is enrolling, at what level, and in what type of school aids educators and policymakers in evaluating patterns, identifying potential needs, and planning for the future.

Preprimary education (prekindergarten and kindergarten) has experienced considerable growth over the past two decades, and enrollment is expected to continue to rise during the 1990s[1]. Research suggests that one source of this growth could be women's increased share of the job market. As more women enter the labor force, more preprimary services are required [2].

From 1971 to 1987 (a period of less than 20 years), enrollment in prekindergarten (Pre-K) has doubled for white children. For black children, enrollment rose rapidly until 1982. Since then, it has declined. Kindergarten enrollments has risen as well. This is especially the case for black 5-year-olds, who now are equally as likely as whites to be enrolled in kindergarten. From 1984 to 1986, enrollment of blacks rose almost 6 percentage points.

Attendance patterns of children in preprimary education have changed sharply in the last two decades. Many more children are now attending on a full-day basis. For example, of the total population of 3- to 5-year-olds, only 5 percent attended on a full-day basis in 1969. By 1987, that figure almost quadrupled to 19.2 percent.

The enrollment patterns of elementary and secondary schools have changed greatly in the recent past. During the 1950s and 1960s, as the "baby-boomers" moved into the schools, enrollment rose quite rapidly. But in the 1970s and much of the 1980s enrollment dropped off sharply. From 1975 to 1988, enrollment declined in the public schools at the elementary level, but the loss was greater at the secondary level. Private elementary schools actually grew by about 4 percent during the same time.

The 1990s should be a time of growth for all levels of education. Public schools, overall, are expected to grow by almost 9 percent, while private schools are expecting an 8 percent increase. The largest gains should be at the secondary

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[1] A. Pendelton. "Preschool Enrollment: Trends and Implications," *Issue Paper*, U.S. Department of Education, National Center for Education Statistics, 1986.

[2] S.M. O'Connor, "Women's Labor Force Participation and Preschool Enrollment: A Cross-National Perspective, 1965-80," *Sociology of Education* 61 (1), (1988):15-28.

level, where a jump of more than 16 percent in enrollments is projected for both public and private schools.

E. Size and Growth of the Schools

Indicator 1:14 Enrollment rates in preprimary education

In recent years, preprimary education has been expanding. Within most groups, an increasing percentage of children are receiving preprimary instruction. As the demand for prekindergarten (pre-K) and kindergarten services increases, educators and policymakers must have reliable enrollment data to analyze trends and anticipate needs. This indicator presents data on enrollments by age and level, and by race/ethnicity, during the 1970s and 1980s.

- **From 1972 to 1987, average pre-K enrollment rates doubled for whites 3 to 4 years old.**
- **From 1972 to 1979, average pre-K enrollment rates for blacks 3 to 4 years old rose from 16.2 percent to 29.1 percent. From that time to 1986, average enrollment pre-K rates for black 3-4-year-olds have fallen to 27.1 percent (Table 1:14-2).**
- **Average kindergarten enrollment rates of blacks 5 years old have increased from 67.1 percent in 1972 to 82.1 percent in 1986. In 1987, they were 80.6 percent.**

Enrollment rates in preprimary education, by age and level, and by race/ethnicity: 1972–1986 (3-year average)

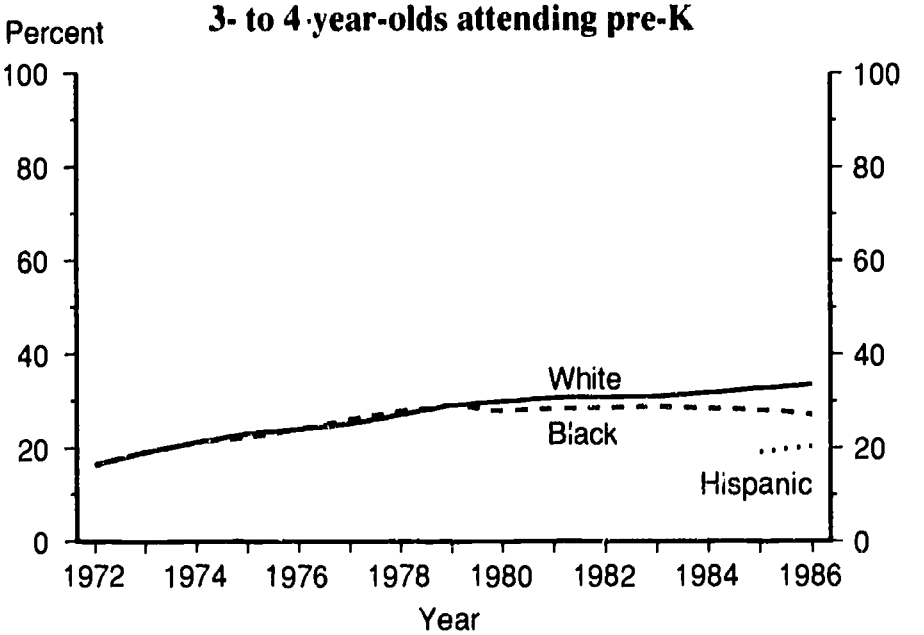
	3- to 4-year-olds in pre-K			5-year-olds in kindergarten		
Year*	White	Black	Hispanic	White	Black	Hispanic
1972	16.5	16.2	—	74.1	67.1	—
1974	21.2	21.2	—	77.1	69.1	—
1976	24.0	23.9	—	79.9	74.0	—
1978	27.1	27.8	—	80.4	74.6	—
1980	29.9	28.0	—	81.2	75.5	—
1982	30.8	28.6	—	80.1	75.3	—
1984	31.7	28.4	—	80.3	76.3	—
1985	32.7	28.3	19.0	81.4	79.1	78.0
1986	33.5	27.1	20.3	80.4	82.1	76.7

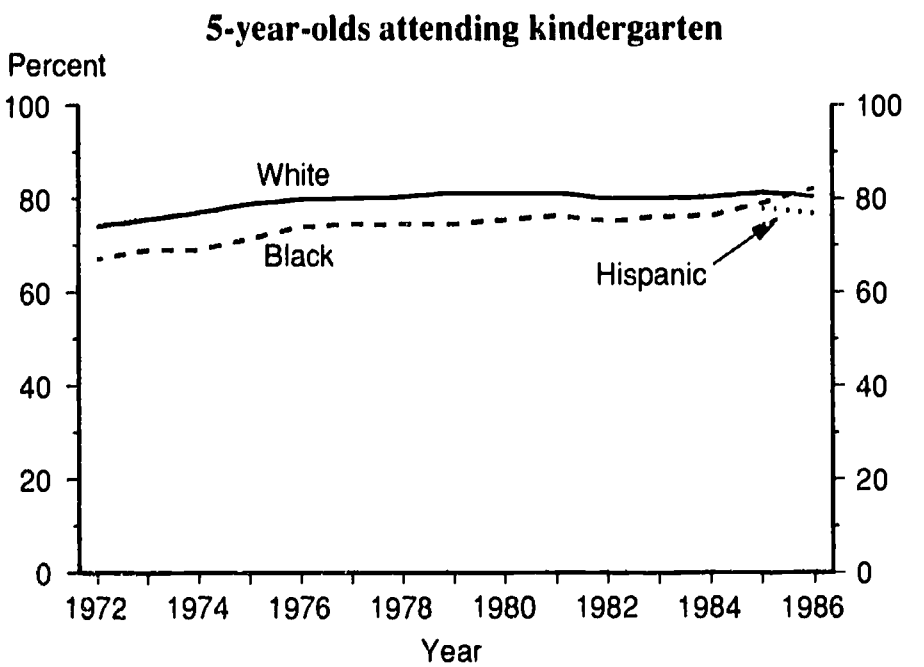
* Three-year average. For example, the 3-year average percentage for 1986 is the average of the percentages for 1985, 1986 and 1987. See supplemental tables 1:14-1, 1:14-2 and 1:14-3 for single year percentages.

NOTE: Total enrollment rates for these age groups are higher than what is presented here. Three- and 4-year-olds, for example, are sometimes enrolled in kindergarten, while 5-year-olds are also enrolled in pre-k, and the first or second grades.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Chart 1:14 Enrollment in preprimary education, by race/ethnicity: 1972–1986 (3-year average)





SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

E. Size and Growth of the Schools

Indicator 1:15 Distribution of preprimary enrollments

In preprimary education, there is greater choice and variety than in either elementary or secondary. Children can attend different levels, with different attendance patterns. This indicator presents data on the distribution of preprimary enrollments by level (prekindergarten, kindergarten), control (public, private), and attendance patterns (full-day, part-day). These data can inform educators and policymakers about various patterns in preprimary education.

- **Enrollment in all levels of preprimary education jumped from 34.6 percent of the total population of 3- to 5-year-olds in 1969, to almost 55 percent in 1987. Since then it has remained fairly stable.**
- **Of the total population of 3- to 5-year-olds, only 5 percent were attending preprimary education on a full-day basis in 1969. By 1987, that figure had almost quadrupled.**
- **Children are more likely to attend private school in prekindergarten (pre-K) and public school in kindergarten.**

Enrollment in preprimary education as a percent of the total 3- to 5-year-old population, by control, level, and attendance status: 1969–1987

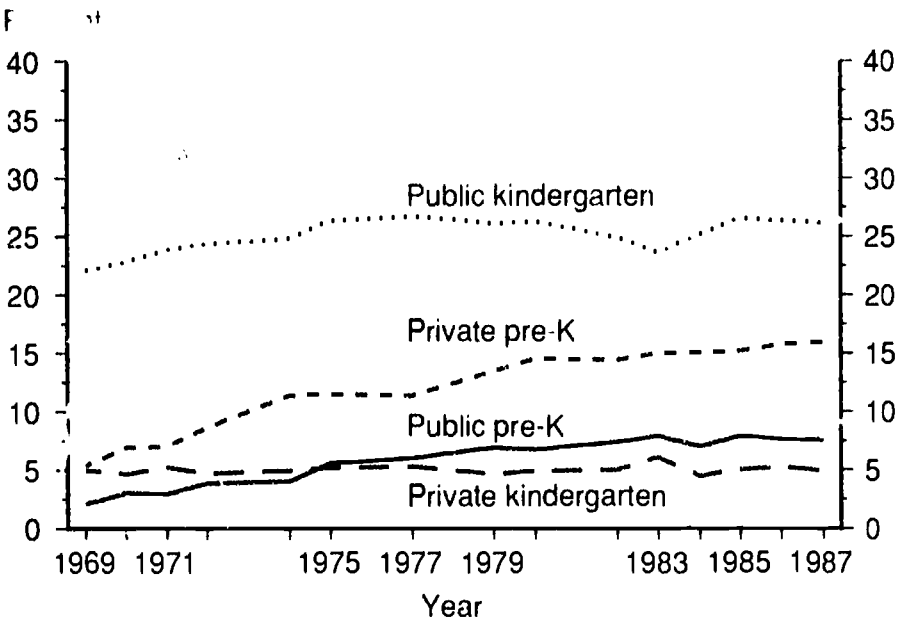
		Enrollment by control and level				Enrollment by attendance status	
	Total	Public pre-K	Private pre-K	Public kindergarten	Private kindergarten	Full-day	Part-day
1969	34.6	2.1	5.4	22.1	5.0	5.1	29.4
1970	37.5	3.0	7.0	22.8	4.7	6.4	31.1
1971	39.1	3.0	7.0	23.9	5.2	6.8	32.3
1972	41.7	3.9	8.7	24.4	4.7	9.1	32.5
1973	—	—	—	—	—	—	
1974	45.3	4.1	11.4	24.8	5.0	10.8	34.4
1975	48.6	5.6	11.5	26.3	5.2	12.7	35.9
1976	–	—	—	—	—	—	—
1977	49.4	6.0	11.4	26.7	5.3	14.6	34.9
1978	–	—	—	—	—	—	—
1979	51.1	6.9	13.5	26.1	4.6	15.9	35.2
1980	52.6	6.8	14.6	26.3	4.9	16.7	35.8
1981	–	—	—	—	—	15.6	36.8
1982	51.7	7.4	14.4	24.9	5.0	15.9	35.8
1983	52.6	7.9	15.0	23.6	6.1	—	—
1984	51.6	7.0	15.0	25.1	4.5	18.2	33.5
1985	54.6	7.9	15.2	26.5	5.0	20.0	34.7
1986	54.9	7.6	15.8	26.3	5.2	20.6	34.3
1987	54.5	7.5	16.0	26.1	4.9	19.2	35.3

— Not available.

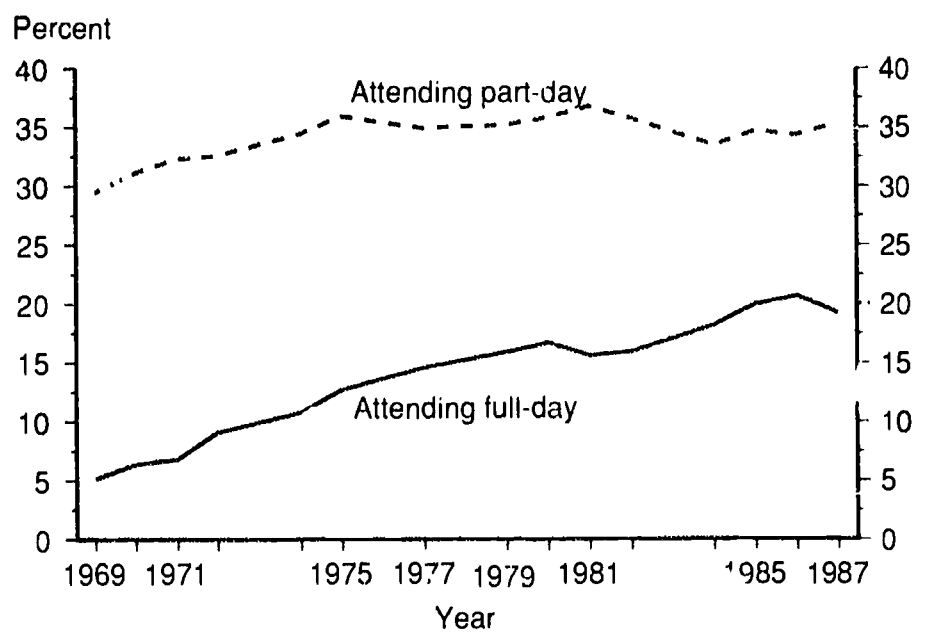
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Preprimary Enrollment*, various years; *Digest of Education Statistics, 1989*; U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, various years, unpublished tabulations.

Chart 1:15 Distribution of preprimary enrollments

By level and control: 1969–1987



By attendance status: 1969–1987



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Preprimary Enrollment*, various years; *Digest of Education Statistics, 1989*; U.S. Department of Commerce, Bureau of the Census, October Current Population Survey, various years, unpublished tabulations.

E. Size and Growth of the Schools

Indicator 1:16 Distribution of elementary and secondary school enrollments

In the United States, the tradition of public education has been complemented by a history of private school alternatives. In this indicator enrollment figures from both types of schools are presented by level. Additionally, enrollment patterns are presented over time, and projections are made to the year 2000. These figures are essential for educators who need data to analyze enrollment patterns and plan for future enrollments.

- **From 1970 to 1984 total public school enrollments fell by about 14 percent. From 1985 to 1988 enrollments have risen by about 2 percent (Table 1:16-1).**
- **From 1970 to 1984, total private school enrollment rose by over 6 percent (Table 1:16-1).**
- **From 1989 to 2000, public school enrollments are projected to rise from 40 million to almost 44 million, an increase of almost 9 percent.**
- **During the same time period, total private school enrollments are expected to rise from 5.2 million to almost 5.7 million, an increase of 8 percent.**

Elementary and secondary school enrollments, by level and control of school, with projections

Year/ period	Public schools			Private schools		
	Grades K-12[1]	Grades K-8[1]	Grades 9-12	Grades K-12[1]	Grades K-8[1]	Grades 9-12
	(In thousands)					
1970	45,909	32,577	13,332	5,363	4,052	1,311
1988[2]	40,196	28,390	11,806	5,241	4,036	1,206
	Projected			Projected		
1989	40,323	28,818	11,505	5,272	4,097	1,175
2000	43,835	30,417	13,418	5,695	4,324	1,371
	Percentage change			Percentage change		
1970-88	-12.4	-12.6	-11.4	-2.3	-0.4	-8.0
	Projected percentage change			Projected percentage change		
1989-2000	8.7	5.4	16.6	8.0	5.5	16.7

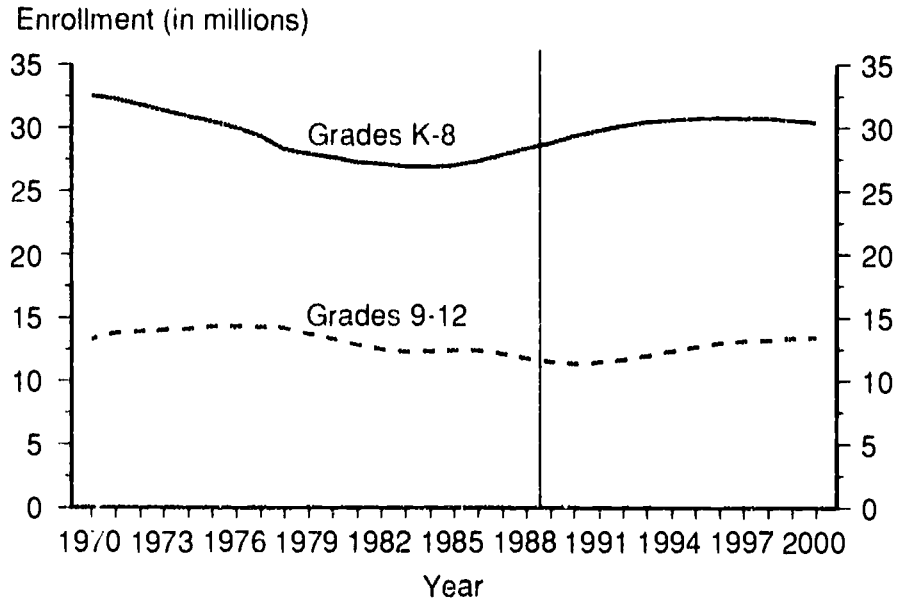
[1] Includes most kindergarten and some nursery school.

[2] Estimated.

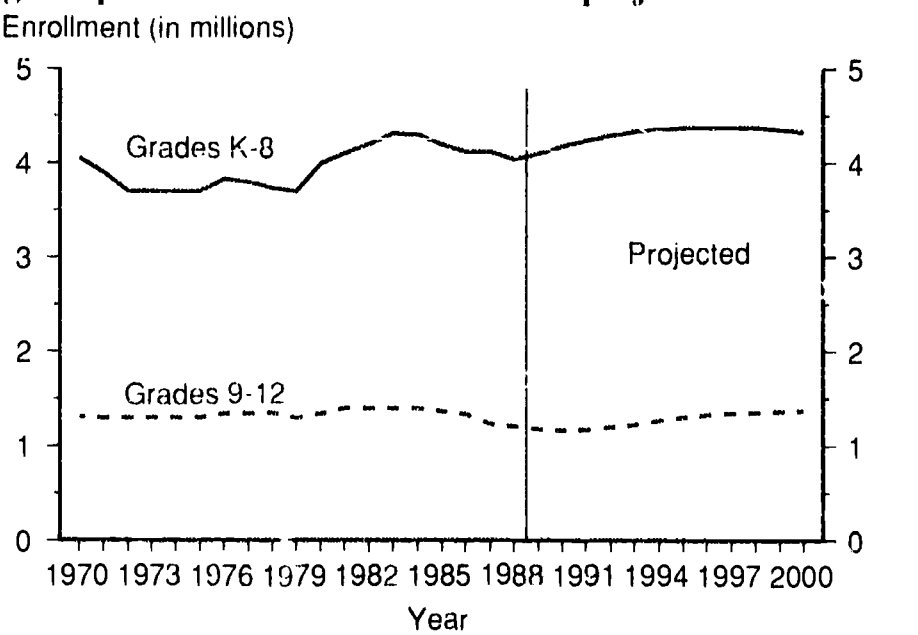
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2000*, 1989; *Digest of Education Statistics, 1989*, unpublished tabulations.

Chart 1:16 Distribution of elementary and secondary school enrollments: 1970–2000

Changes in public school enrollments, with projections:



Changes in private school enrollments, with projections:



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2000*, 1989; *Digest of Education Statistics, 1989*; unpublished tabulations.

F. Student Characteristics

Section F presents data on attributes of students in American education. Three areas are analyzed: the distribution of enrollment by race and ethnicity; the proportion of children from low-income families, and the percentage of students working while in high school.

Policy analysts and educators are often interested in the composition and characteristics of students. The percentage of minority students in the public schools has been rising, while the percentage of the majority students has been declining. For example, in 1976, 76 percent of the public school population was white. In 1986 that figure dropped to approximately 70 percent—a 6 percent decline in 10 years.

The percentage of school-age children from families below the poverty level was quite high in the early 1960s. Through the 1960s, however, it fell sharply, then rose during the 1970s and early 1980s, and has stabilized somewhat since then. In 1959-60, slightly more than one in four children under 18 were from a family living below the poverty level; by 1987 that number was down to one in five. During that time, poverty rates for black children fell from almost 66 percent to about 45 percent, and the rate for white children fell from 20 percent to 15 percent. In 1987, the poverty rate for black children was three times the rate for white children (45 and 15 percent, respectively). The Hispanic rate was approximately 39 percent in 1987, or about 2.6 times the white rate. Thus, although the overall poverty rate for children was lower in 1989 than it was in 1959-60, it remained high for both black and Hispanic children.

It has been suggested that employment during high school can induce good work habits, and generally produce individuals trained for the marketplace. Many of today's high school students work while in school. However, some research shows that an excessive amount of time spent on a job (i.e., over 15 hours per week) can hinder academic achievement and be counterproductive for the adolescent in terms of educational, psychological, and social growth. Other research suggests that working while in school has little effect on learning.* In 1988, about one in three high school students held a job. Of that number, approximately 60 percent worked

*For a variety of perspectives and results see Meyer, Robert H. and David A. Wise, "High School Preparation and Early Labor Market Experience," in Freeman, Richard A. and David A. Wise (eds.), *The Youth Labor Market Problem: Its Nature, Causes, and Consequences*, Chicago, IL: The University of Chicago Press for the National Bureau of Economic Research, 1982; D'Amico, Ronald, "Does Employment During High School Impair Academic Progress?," *Sociology of Education, 57(3)*, July 1984; Greenberger, Ellen and Laurence Steinberg, *When Teenagers Work: The Psychological and Social Cost of Adolescent Employment*, (New York: Basic Books, 1986); and Barton, Paul E. *Earning and Learning: The Academic Achievement of High-School Juniors With Jobs*, Educational Testing Service, March 1989.

15 hours or more per week. Black students were less than half as likely as whites to work while in school.

In brief, the data presented in this section suggest that a rapidly growing percentage of public school students are minority. A somewhat smaller percentage of children are from families below the poverty level than in the past, although poverty for minority children remains high. About one-third of students hold jobs while they are in high school, while research has shown that work during this time could have negative consequences for the student-worker.

F. Student Characteristics

Indicator 1:17 Distribution of enrollments by race/ethnicity

Between 1976 and 1986, the ethnic and racial composition of the public schools underwent considerable change caused by a rapidly increasing minority population. The greatest expansion occurred among the Hispanic and Asian populations. These increases portend a greater degree of heterogeneity of language and culture in the schools. Since many minorities come from impoverished families as well, the changing enrollment patterns present the public schools and policymakers with challenges which must be met with bold and effective programs.

- **Total minority enrollment in elementary and secondary education rose from 24 percent in 1976 to almost 30 percent in 1986.**
- **The proportion of Hispanic enrollments increased from 6.4 percent in 1976 to almost 10 percent of total enrollments in 1986. The number of Hispanic students increased by 45 percent during this time period.**
- **The enrollments of white students declined between 1976 and 1986, from 76 percent to 70 percent.**
- **During the same time period enrollments of Asian/Pacific Islander students increased from 535,000 to 1,158,000; an increase of 116 percent.**

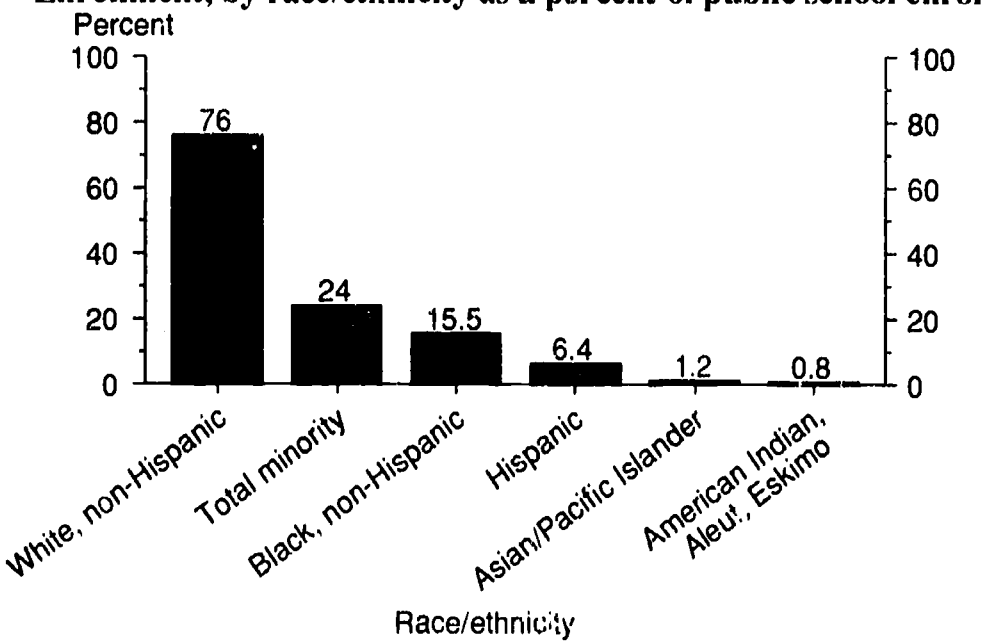
Enrollment in public elementary and secondary education, by race/ethnicity: 1976, 1984, 1986

Race/ethnicity	1976	1984	1986	Percent change 1976-1986
		Number in thousands		
Total	43,714	39,442	41,156	-5.9
White, non-Hispanic	33,229	28,108	28,957	-12.9
Total minority	10,485	11,346	12,200	16.4
Black, non-Hispanic	6,774	6,389	6,622	-2.2
Hispanic	2,807	3,599	4,064	44.7
Asian/Pacific Islander	535	994	1,158	116.4
American Indian/Alaskan Native	368	364	356	-3.3
		Percent of public school enrollment		
Total	100.0	100.0	100.0	—
White, non-Hispanic	76.0	71.2	70.4	—
Total Minority	24.0	28.8	29.6	—
Black, non-Hispanic	15.5	16.2	16.1	—
Hispanic	6.4	9.1	9.9	—
Asian/Pacific Islander	1.2	2.5	2.8	—
American Indian/Alaskan Native	0.8	0.9	0.9	—

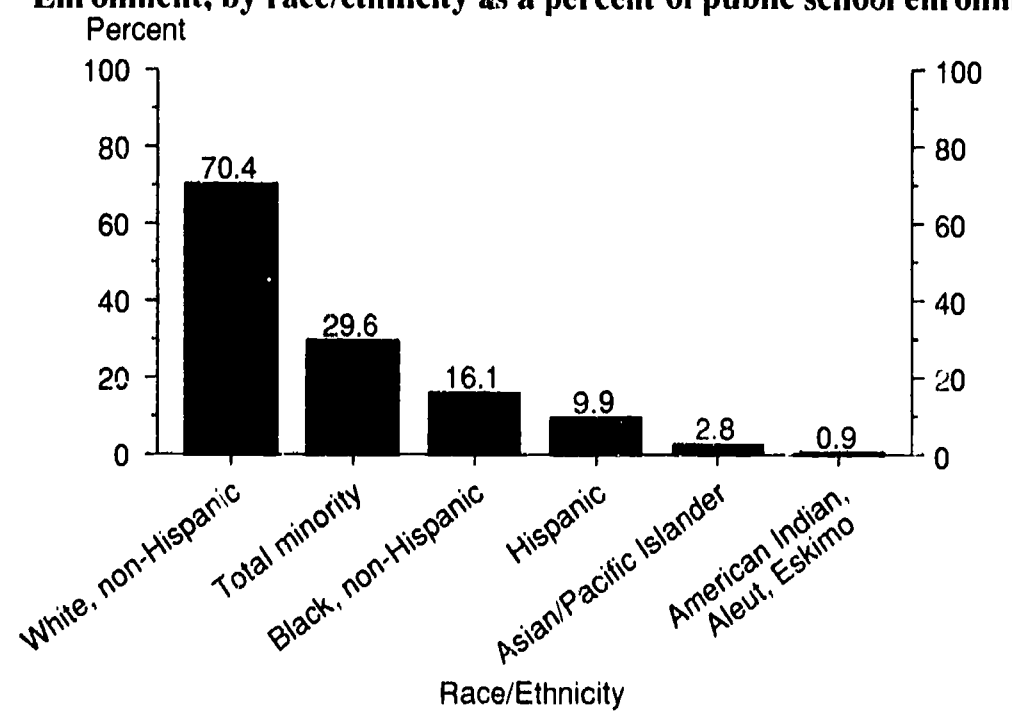
SOURCE: U.S. Department of Education, Office for Civil Rights, *Directory of Elementary and Secondary School Districts and schools in selected districts*: 1976–1977; and 1984 and 1986 Elementary and Secondary School Civil Rights Survey.

Indicator 1:17 Enrollment in public elementary and secondary education

Enrollment, by race/ethnicity as a percent of public school enrollment: 1976



Enrollment, by race/ethnicity as a percent of public school enrollment: 1986



SOURCE: U.S. Department of Education, Office for Civil Rights, *Directory of Elementary and Secondary School Districts and Schools in Selected Districts*: 1976–1977; and 1984 and 1986 Elementary and Secondary School Civil Rights Survey.

F. Student Characteristics

Indicator 1:18 Children in poverty

The effects of poverty on children's education are well documented. Low achievement, high dropout rates, and poor educational performance are highly correlated with poverty. Children from poor homes may lack adequate preparation for elementary school learning, and they may need more number of school services than other children. Therefore, it is important to track the number and proportion of poor children as a measure of the challenges facing the schools.

- **The percentage of black children living below the poverty level was three times that of white children in 1987; Hispanic children were 2.6 times as likely as white children to live in poverty.**
- **Children from female-headed families are much more likely to be living in poverty than children in all families.**
- **The percentage of all children below the poverty level dropped from almost 27 percent in 1959 to a low of 14.9 percent in 1970, but has since risen and was 20 percent in 1987.**

Percent of children under 18 living in poverty: 1960–1987

	All Children in families				Children in female-headed families			
	Total	White	Black	Hispanic[1]	Total	White	Black	Hispanic[1]
1960[2]	26.5	20.0	65.5	—	23.8	21.0	29.4	—
1965[3]	20.7	14.4	47.4	—	31.7	27.0	49.7	—
1970	14.9	10.5	41.5	—	45.8	36.6	60.8	—
1975	16.8	12.5	41.4	34.5	51.4	41.7	70.1	42.9
1980	17.9	13.4	42.1	33.0	52.8	41.3	75.4	47.1
1981	19.5	14.7	44.2	35.4	52.2	42.0	74.3	48.5
1982	21.3	16.5	47.3	38.9	—	—	—	—
1983	21.8	17.0	46.2	37.7	50.0	39.3	74.5	42.5
1984	21.0	16.1	46.2	38.7	52.4	41.8	74.9	47.2
1985	20.1	15.6	43.1	39.6	53.8	43.0	78.4	49.6
1986	19.8	15.3	42.6	37.1	56.6	45.7	80.5	49.5
1987	20.0	15.0	45.1	39.3	56.7	46.0	79.0	47.2

[1] Hispanics may be of any race. Data for Hispanics begins in 1973.

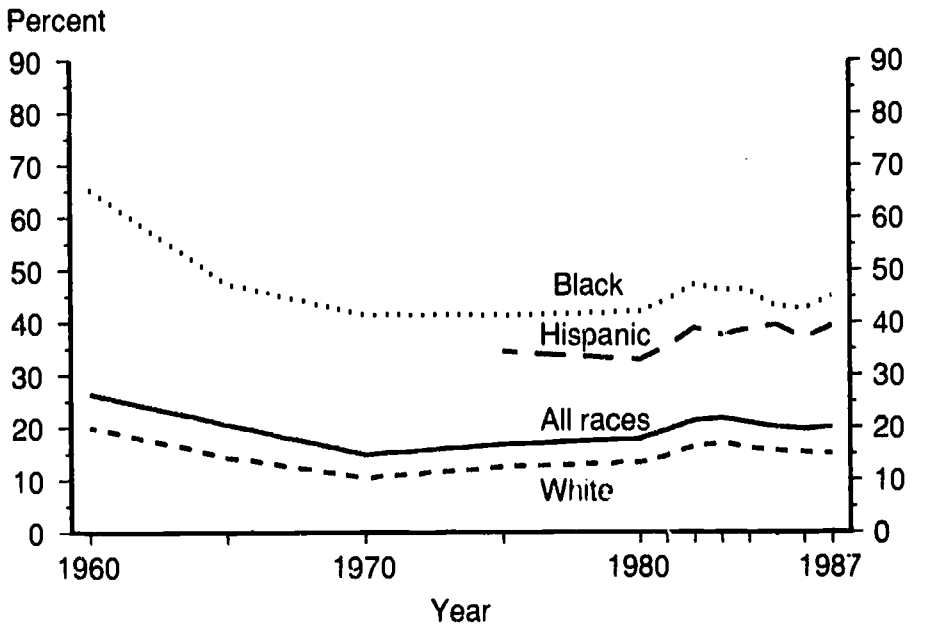
[2] Data presented are 1959 for blacks, and 1960 for whites and total.

[3] Data presented are 1967 for blacks, and 1965 for whites and total.

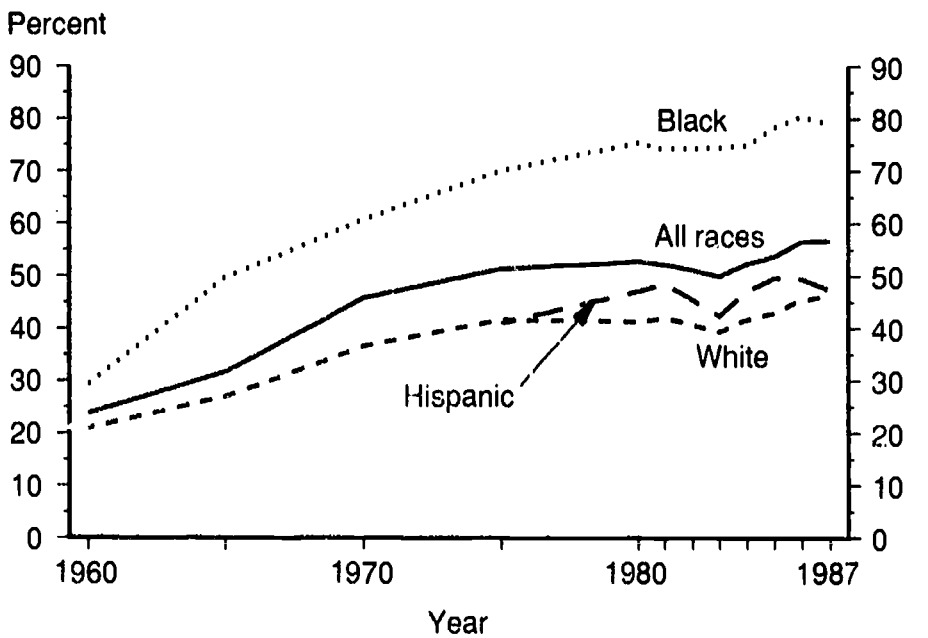
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60. "Poverty in the United States: . . .," various years.

Chart 1:18 Percent of children under 18 in poverty

Percent of all children under 18 in poverty, by race/ethnicity: 1960–1987



Percent of all children in female-headed households in poverty, by race/ethnicity: 1960–1987



NOTE: Plotted points are 1960, 1965, 1970, 1975, 1980-1987

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, series P-60, "Poverty in the United States: . . .," various years.

F. Student Characteristics

Indicator 1:19 Working while in high school

Working during the school year leaves less time for students to concentrate on their studies or to participate in extracurricular activities. On the other hand, students may learn from work experience things that are not taught in the classroom. Those who work more while in school may earn more after leaving school. A moderate amount of work—less than 15 hours per week—may be associated with higher completion rates and better grades. A substantial amount of work—more than 20 hours per week—may be detrimental to grades and attendance.

- **Over the 1970–1989 time period the percent of high school students who were working varied with general economic conditions. The proportion working fell during the 1982—83 recession, but has been rising since.**
- **Black high school students were less than half as likely as their white counterparts to work while still in school.**
- **During the first half of the 1970s male high school students were more likely to work than females. During the last half of the 1980s, this pattern reversed.**

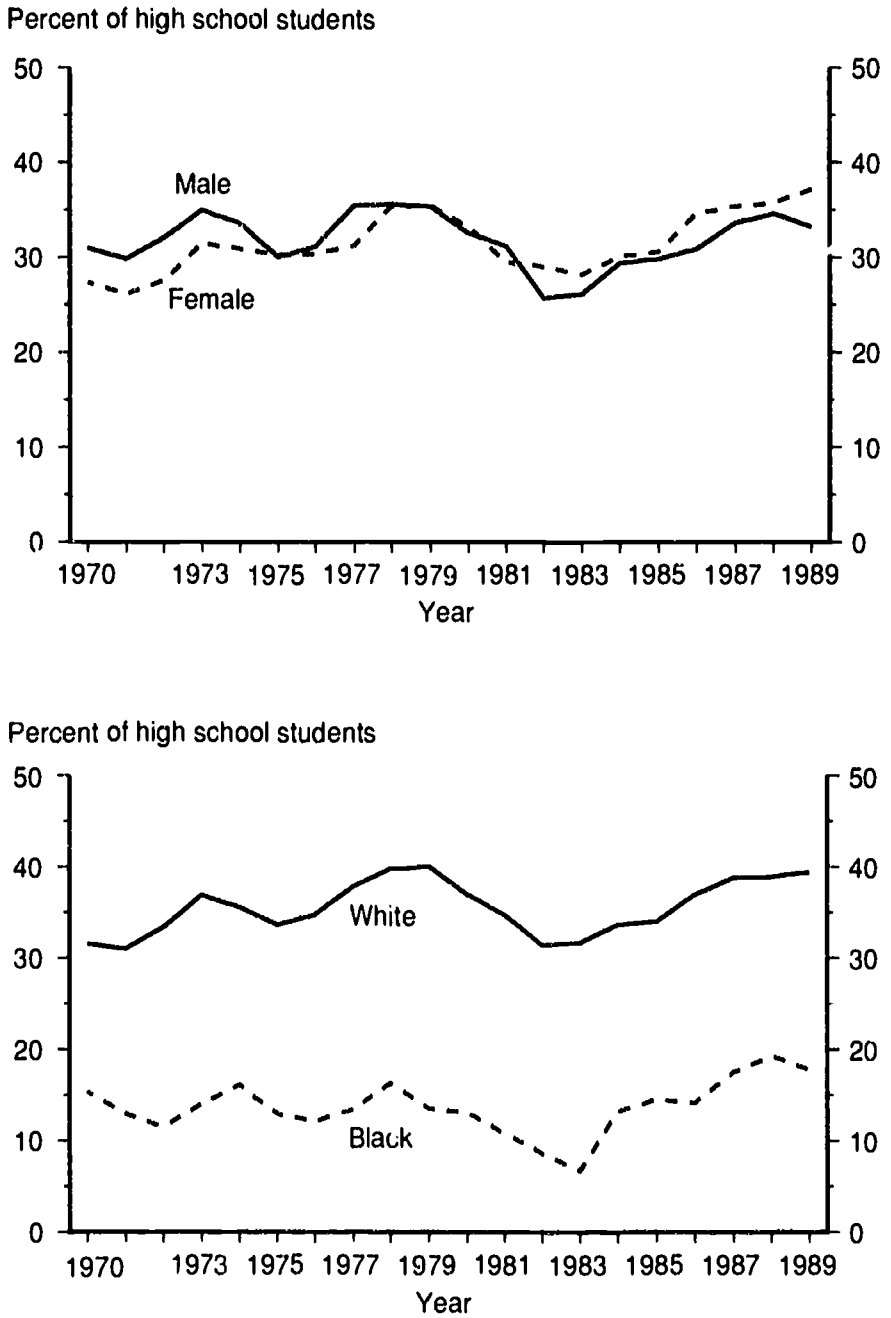
Percent of high school students 16-24 years old who were employed, by sex and race: 1970–1989

	Male employed		Female employed		White employed		Black employed	
Year	Total	Full time*	Total	Full time*	Total	Full time*	Total	Full time*
1970	30.9	3.7	27.3	1.7	31.6	2.8	15.3	2.5
1971	29.8	2.9	26.1	1.3	31.0	2.1	12.9	2.4
1972	32.0	4.1	27.5	1.7	33.3	3.1	11.5	2.6
1973	35.0	5.0	31.5	1.8	36.9	3.7	14.1	2.1
1974	33.6	4.6	30.9	2.0	35.6	3.6	16.1	2.1
1975	30.0	3.5	30.2	2.1	33.6	3.2	12.9	1.3
1976	31.1	3.5	30.4	1.6	34.8	2.7	12.1	2.4
1977	35.4	4.1	31.2	2.1	37.8	3.5	13.4	1.8
1978	35.6	4.0	35.4	2.3	39.8	3.5	16.3	1.8
1979	35.4	3.6	35.5	2.3	40.0	3.3	13.5	1.6
1980	32.5	2.9	33.2	1.7	37.0	2.4	13.1	2.0
1981	31.2	2.5	29.5	1.5	34.8	2.1	10.9	1.5
1982	25.7	1.7	29.0	1.3	31.4	1.9	8.6	0.1
1983	26.1	2.4	28.2	1.6	31.7	2.4	6.7	0.6
1984	29.4	2 3	30.1	0.9	33.7	1.8	13.3	0.8
1985	29.8	2.1	30.6	1.0	34.0	1.8	14.5	0.8
1986	30.9	2.4	34.6	1.3	36.9	2.1	14.2	0.9
1987	33.6	2.5	35.4	1.6	38.8	2.2	17.5	1.8
1988	34.6	2.9	35.7	1.5	38.9	2.3	19.3	1.5
1989	33.2	3.5	37.2	1.8	39.4	3 0	17.8	1.3

* 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940—1987*, and unpublished tabulations.

Chart 1:19 Percent of high school students 16-24 years old who were employed: 1970–1989



SOURCE: U.S. Department of Labor. Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations.

G. School Climate

Section G deals with school climate. The indicators present data on eighth graders' attitudes about school climate, the use of illegal drugs and alcohol by high school seniors, and problems in the schools as perceived by teachers and the public.

Perceptions of school climate may have a significant impact on the functioning of students and staff. Many psychologists in the 1950s and 1960s linked student outcomes *directly* to the environment or perceptions of the environment in which the student learned. If the environment could be successfully manipulated, significant changes in learning and school behavior would occur. Today, many psychologists would question the extent of that claim for they believe that the learner must be actively engaged in the learning process, as well[1]. Still, evidence suggests that the learning environment or climate is a critical element and can be either conducive or detrimental to learning.

The perceptions of the climate in American schools by eighth graders in 1988 were mixed. Students felt that they received good teaching, but point out that other students often disrupted class to the point that the learning process was disturbed. Most students felt a real school spirit, but almost 1 in 5 black students felt unsafe at their schools. A majority of students believe that discipline is fair, but a majority also believe that misbehaving students often "get away with it." Almost 22 percent often feel "put down" by their teachers, but more than 63 percent agreed that teachers praise their efforts when they work hard.

Individuals other than students have attitudes about the functioning of schools and their problems. Recently both teachers and the general public were questioned about problems that face schools. Teachers, like students, thought that disturbances in the classroom or discipline problems were serious. Teachers, again like students, did not think that teachers generally exhibited a lack of interest in school. However, teachers ranked parents' lack of interest or support as the most serious problem; the general public considered this to be a minor problem.

The public indicated drug abuse was the most serious problem facing the schools. Teachers disagreed; only 13 percent said that drugs were among the most serious problems facing their schools. Illegal drugs are being used by high school seniors, but the use appears to be on the decline. For example, in 1981 the percentage of high school seniors who said they had ever used any illegal drug was over 65 percent. Since then, the percentage has declined, and in 1989 about 51 percent of

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[1] For a discussion of the importance of the classroom climate, see R.E. Mayer, *Educational Psychology: A Cognitive Approach*, 1987.

seniors said they had ever used any illegal drug. In 1985, more than 17 percent of seniors in high school reported ever having used cocaine. By 1989, the figure had dropped to about 10 percent. There is evidence, however, that the use of the inexpensive and highly addictive form of cocaine called "crack" has not followed the general decline in cocaine usage, especially in urban areas and among high school dropouts[2]. The percentage of high school seniors who have ever used alcohol remains high. Ninety percent in 1989 reported ever having used alcohol, and almost 60 percent said that they had used alcohol in the last 30 days.

[2] "Young Adults Show Drop in Cocaine Use," *The New York Times*, January 14, 1988.

G. School Climate

Indicator 1:20 Eighth graders' attitudes about school climate

Research has demonstrated that children's attitudes toward school can influence learning and other school-related behavior. This indicator examines eighth graders' attitudes toward school, by race/ethnicity (white, black, and Hispanic) and by control of school (public, Catholic, and other private schools). By comparing and contrasting attitudes toward school on these two variables, important differences and similarities can be highlighted.

- **Overall, there is a similarity of attitudes toward school climate among the racial/ethnic groups.**
- **Students from "other private schools" express a much more positive attitude toward school than their public school counterparts.**
- **Eighty percent of all eighth graders believe the teaching they are receiving is "good".**
- **More than 40 percent of public school students stated that disruptions in class are interfering with their ability to learn; only 28 percent of "other private school" and 31 percent of Catholic school eighth graders expressed that sentiment.**
- **88 percent of "other private school" students said that their teachers are interested in the students at the school; less than 74 percent of the public school students shared this view.**
- **Eighteen percent of black students, and about 16 percent of Hispanic students do not feel safe in their schools. Only about 10 percent of white students feel unsafe at their schools.**

Percent of students who strongly agree or agree with statement

Statement about school climate	All 8th graders	Race/ethnicity			Control of school		
		White	Black	Hispanic[1]	Public	Catholic	Other Private[2]
Teaching is good	80.2	80.0	80.0	81.3	79.6	82.9	88.4
Teachers are interested in students	75.2	74.4	76.6	76.8	73.9	83.0	88.2
Teachers praise my effort when I work hard	63.3	60.3	72.1	70.7	62.3	66.9	74.8
Other students often disrupt class	77.9	77.3	80.5	79.1	79.0	70.8	67.8
Misbehaving students often get away with it	52.8	51.9	53.7	55.7	53.5	50.5	45.9
Disruptions by other students interfere with my learning	39.6	35.7	54.9	44.9	41.0	31.8	28.0
I don't feel safe at this school	11.8	9.9	18.0	16.1	12.5	7.6	5.8

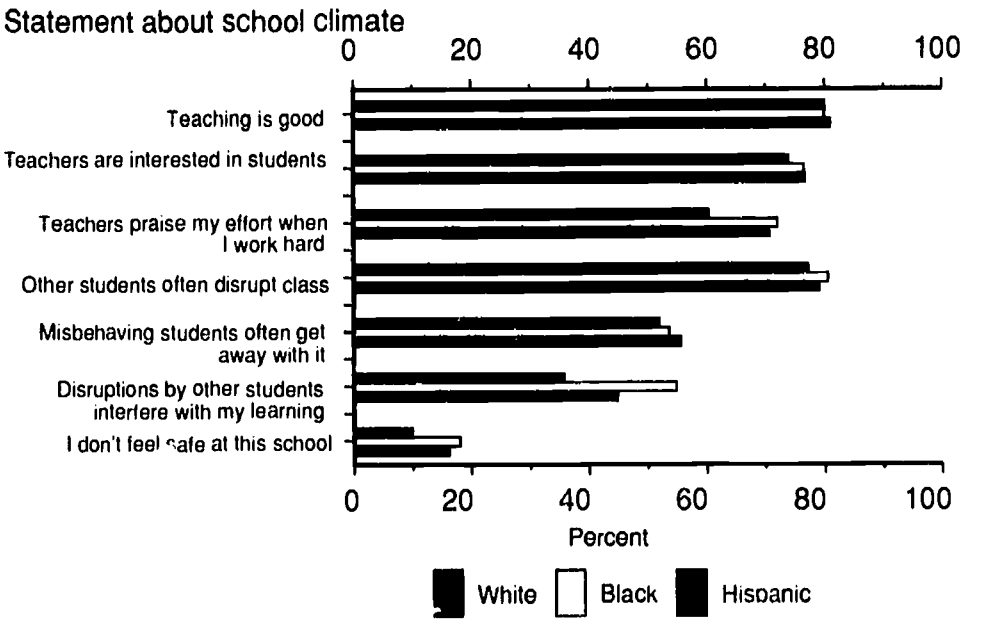
[1] Hispanics may be of any race.

[2] The "other private" category refers to private schools that do not classify themselves as either Catholic or Independent.

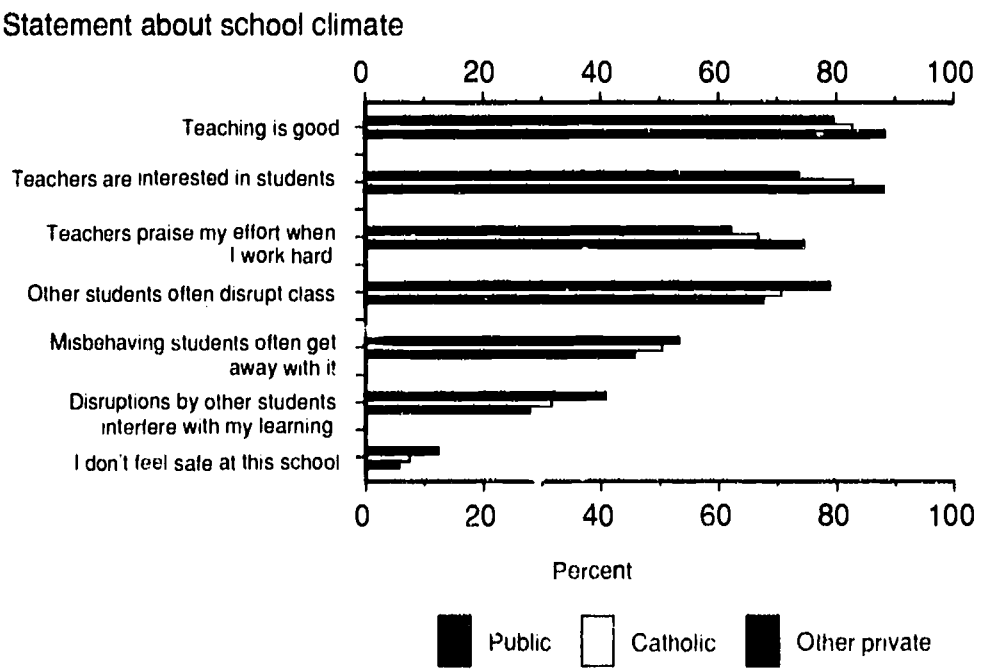
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 base year survey.

Chart 1:20 Eighth graders' attitudes about school climate.

Percent of students who agree or strongly agree with the statement, by race/ethnicity



Percent of students who agree or strongly agree with the statement, by control of school



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 base year survey.

G. School Climate

Indicator 1:21 Student drug and alcohol use

Drugs and alcohol interfere with thinking and reduce academic achievement. Crimes of violence may accompany or result from substance abuse. In these circumstances, school effectiveness and the achievement of all students can suffer. This indicator presents data on drug and alcohol use by high school seniors. The information can be used by educators to determine the scope of the drug and alcohol abuse problem.

- **From 1975 to 1981, the percent of high school seniors who had ever used drugs climbed from 55 percent to almost 66 percent, then began to decline. In 1989, the percentage was 50.9.**
- **The percent who have ever used alcohol has remained stable at 90-93 percent since 1977. In 1989 it was about 91 percent**
- **The percent of high school seniors who ever used cocaine rose from 9 percent in 1975, to a high of 17.3 in 1985. Since 1985, this percentage has fallen, and in 1989, was 10.3 percent.**

Drug and alcohol use by high school seniors: 1975–1989 (selected years)

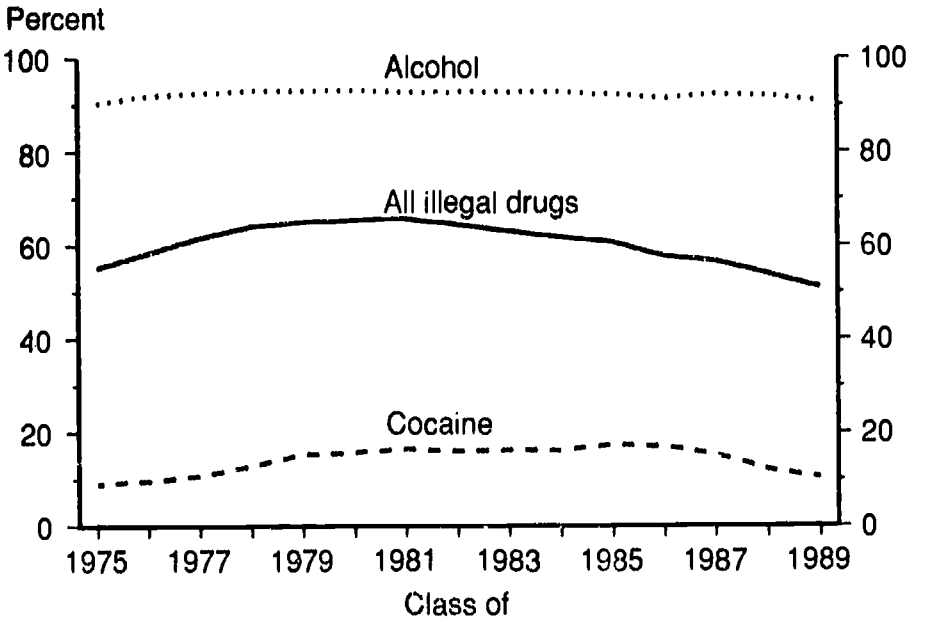
Substance used	Class of 1975	1977	1979	1981	1983	1985	1987	1988	1989
					Percent who ever used				
All illegal drugs*	55.2	61.6	65.1	65.6	62.9	60.6	56.6	53.9	50.9
Cocaine	9.0	10.8	15.4	16.5	16.2	17.3	15.2	12.1	10.3
Alcohol	90.4	92.5	93.0	92.6	92.6	92.2	92.2	92.0	90.7
					Percent who used in the last 30 days				
All illegal drugs*	30.7	37.6	38.9	38.9	30.5	29.7	24.7	21.3	19.7
Cocaine	1.9	2.9	5.7	5.8	4.9	6.7	4.3	3.4	2.8
Alcohol	68.2	71.2	71.8	70.7	69.4	65.9	66.4	63.9	60.0

* Includes marijuana, hallucinogens, cocaine, and heroin, and other opiates, stimulants, sedatives, or tranquilizers not under doctor's orders. About 75 percent of these users reported smoking marijuana.

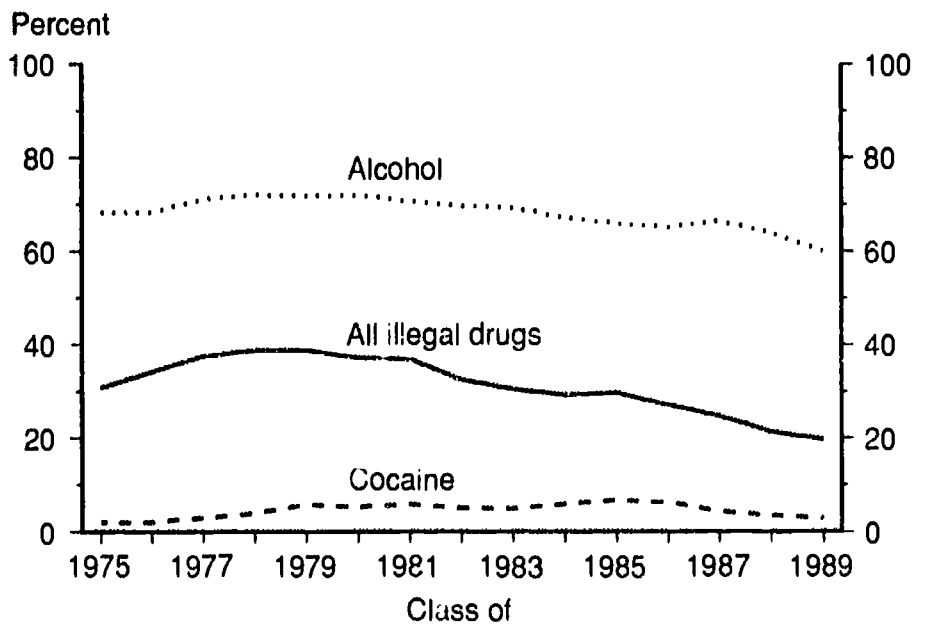
SOURCE: U.S. Department of Health and Human Services; Alcohol, Drug Abuse, and Mental Health Administration; National Institute on Drug Abuse. *Drug Use Among American High School Students, College Students, and Other Young Adults*, 1989. See also U.S. Department of Education, *Schools Without Drugs*, 1986.

Chart 1:21 Student drug and alcohol use: 1975–1989 (selected years)

Percent of high school seniors who have ever used illegal drugs, cocaine, or alcohol



Percent of high school seniors who have used illegal drugs, cocaine, or alcohol within the past 30 days



SOURCE: U.S. Department of Health and Human Services; Alcohol, Drug Abuse, and Mental Health Administration; National Institute on Drug Abuse, *Drug Use Among American High School Students, College Students, and Other Young Adults*, 1989.

Indicator 1:22 Perceptions of problems in the schools, by teachers and the public

The problems that affect public schools have been well-documented. Drug abuse, vandalism, and student unruliness are just a few of the problems which the media and public often cite. In 1988 and 1989, teachers and the general public were asked to identify the most serious problems facing the public schools. Some of the results are presented below. Comparing the perceptions of teachers with those of the public can inform policymakers, educators, and the public as to how severe each group considers the various problems facing the schools.

- **Large discrepancies were produced by the responses to the survey. The three problems mentioned most often by teachers were mentioned far less frequently by the public. Similarly, those considered to be most serious by the public, were mentioned far less frequently by teachers.**
- **More than one-third of the teachers sampled said that the parents' lack of support or interest was the biggest problem in their community's schools. Only 7 percent of the public thought that this was a serious problem.**
- **The public (32 percent) thought that the use of drugs was the most serious problem confronting the schools today. Only 13 percent of teachers felt that drugs were a serious problem.**
- **Teachers ranked the lack of financial support for the schools as the second biggest problem; the public ranked it third.**
- **Twenty-six percent of the teachers considered the pupil's lack of interest to be a serious problem, but only 5 percent of the public thought it was a serious problem.**
- **Nineteen percent of the public and 25 percent of teachers thought that a lack of discipline was a serious problem in the schools.**

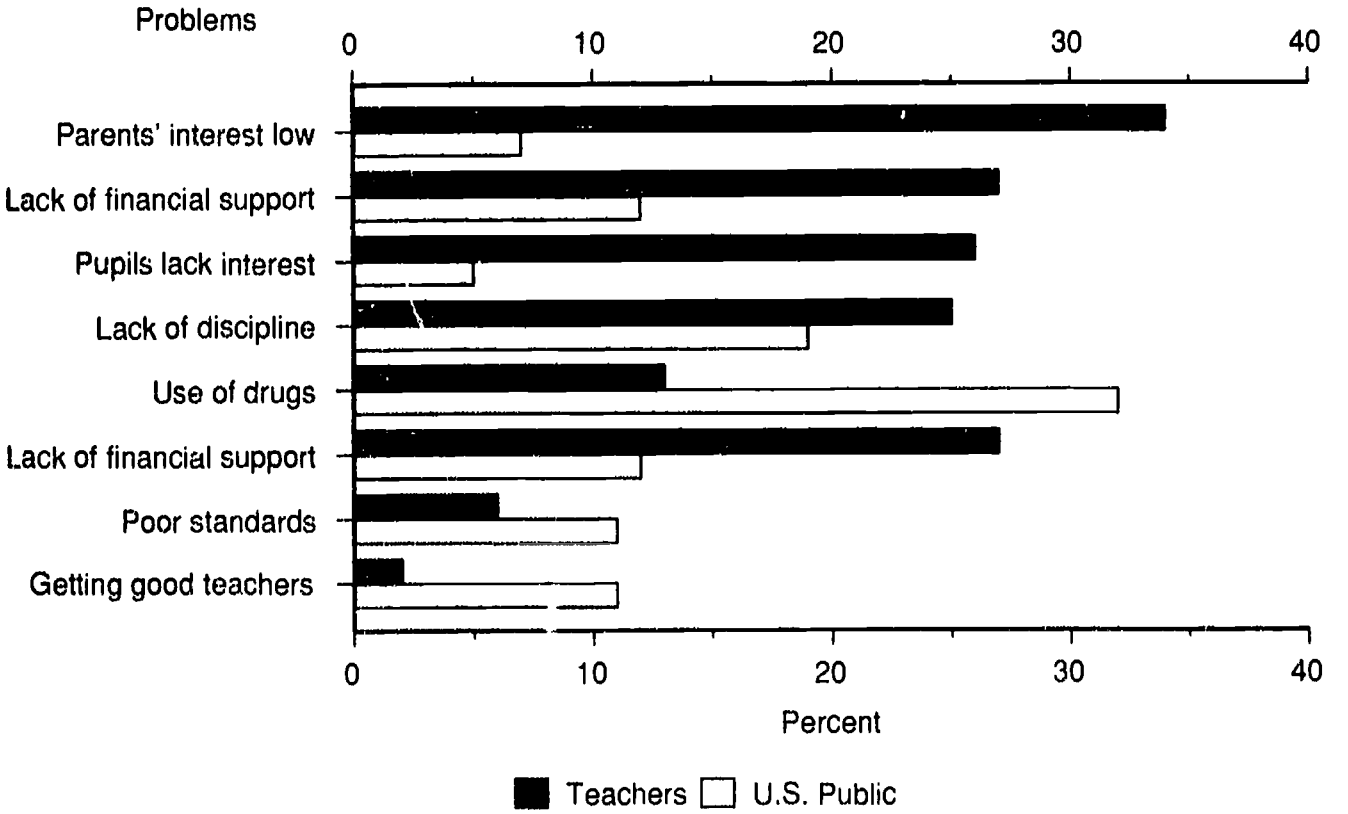
Most serious problems in the schools as perceived by the public and teachers, 1988 and 1989

Problem	Teachers	U.S. Public	Problem	Teachers	U.S. Public
	Percent who considered this a serious problem			Percent who considered this a serious problem	
Parents lack of interest/support	34	7	Use of drugs	13	32
			Poor curriculum/standards	6	11
Lack of proper financial support	27	12	Pupils' lack of interest/truancy	26	5
Lack of discipline	25	19	Difficulty getting teachers	2	11

Note: U.S. Public data are based on the 1988 survey, and the teachers data are based on the 1989 survey.

SOURCE: "The Second Gallup/Phi Delta Kappan Poll of Teachers' Attitudes Toward the Public Schools," *Phi Delta Kappan*, June, 1989.

Chart 1:22 Problems in the schools considered to be most serious by teachers and the U.S. public: 1988 and 1989



SOURCE: "The Second Gallup/Phi Delta Kappan Poll of Teachers' Attitudes Toward the Public Schools," *Phi Delta Kappan*, June, 1989

III. Resources

H. Fiscal Characteristics

Section H presents data on finances in American public education. Increasing demands for services have been placed on educators and the schools. Public schools instruct children from various ethnic, racial, and social, and cultural and linguistic backgrounds. Since the passage of the Education of the Handicapped Act (Public Law 94–42), schools have been required to provide "free and appropriate" education to all. This entails the provision of numerous services and facilities for a variety of students (*indicator 1:12*). In addition, during the 1990s, elementary and secondary schools are expected to experience increases in enrollment (*indicator 1:16*) which could raise the need for revenues still higher. Thus, educators and policymakers are in need of data on the sources, patterns, and levels of education revenues.

Financial support for public education is provided from Federal, State, and local taxes. These funds are allocated to the schools through a variety of mechanisms and formulas particular to each State and school district. Traditionally, the Federal government has had a limited role in providing revenues for public schools. From 1950 to 1980, however, Federal revenues as a share of all revenues rose from less than 4 percent to 10 percent; since 1980 the Federal share has declined. The most significant change in revenue allocation has occurred not at the Federal level, but at the State and local levels. Historically, localities have supplied the lion's share of public school revenues, with States making up the remainder. In 1920, for example, localities provided 83 percent of education revenues. By 1950, this figure had dropped to 53 percent, and it remained at that level for the next 20 years. In the 1970s, the patterns of 1930 to 1950 continued; State revenues increased, while those of localities decreased. By 1979, States contributed a larger percentage of the revenues than did local governments. This is a trend which has continued throughout the 1980s.

Expenditures by public schools have been rising rapidly. In 1950, the current expenditure per pupil (which includes all expenditures for operating public schools, except capital outlay and interest on the debt) was $1,127 (in constant 1989 dollars). In 1989 the figure was $4,719, or more than 4 times the 1950 amount. Similarly, the national index of public school revenues per pupil in relation to per capita income has risen. The national index is a measure of fiscal resources provided each student in relation to taxpayers' ability to pay. In 1950, the index was 15.5, but it has climbed steadily since then, to 27.1 in 1988.

Section G, then, presents several interesting trends. First, the primary provider of revenues by source has changed from localities to the States. The Federal share

has been, and remains, relatively minor. Second, per pupil expenditures in public schools have risen greatly in the last three decades. Third, the national index suggests that what is being spent has grown relative to the taxpayers' ability to pay. However, while education revenues appear to be rising, it should be noted that the indicators in this section do not provide information about how—or on what—these increasing dollars are being spent, so that the efficacy of the expenditures cannot be assessed with these indicators.

H. Fiscal Resources

Indicator 1:23 Public school revenues

Public schools obtain revenue from three levels of government: local, State, and Federal. The share that each contributes is determined by many factors including the public's perception of the role of various levels of government; the extent to which taxes are raised by the different levels; the size of the various tax bases; and the competing demand on tax revenues at the different levels. Historically, local governments have been limited primarily to property taxes and State grants as a basis for raising funds for schools.

- **Since 1920, State and local governments have been the primary source of revenue for public elementary and secondary education; the Federal share has remained small.**
- **In 1979, an historic shift occurred when the States' share of the revenues rose above local governments' share for the first time.**
- **From 1976 to 1979, revenues as a percent of the GNP fell from 4.3 to 3.5 percent; since then it has stabilized.**

Public school revenues and sources : 1920–1988 (selected years)

School year ending	Gross national product[1]	Total revenue[1]	Revenues as a percent of GNP	Sources (Percent of total)		
				Local[2]	State	Federal
1920	—	—	—	83.2	16.5	0.3
1930	—	—	—	82.7	16.9	0.4
1940	—	—	—	68.0	30.3	1.8
1950	—	—	—	57.3	39.8	2.9
1960	—	—	—	56.5	39.1	4.4
1970	$3,106	$129	4.2	52.1	39.9	8.0
1972	325	19	4.6	52.8	38.3	8.9
1974	353	13	4.0	50.1	41.4	8.5
1976	356	14	4.3	46.5	44.6	8.9
1978	389	11	3.9	47.6	43.0	9.4
1980	411	12	3.5	43.4	46.8	9.8
1982	412	13	3.5	45.0	47.6	7.4
1984	437	11	3.5	45.4	47.8	6.8
1986	472	10	3.6	43.9	49.4	6.7
1987	483	14	3.6	43.9	49.8	6.4
1988	—	—	—	44.1	49.5	6.3

— Not available.

[1] In billions of 1989 constant dollars.

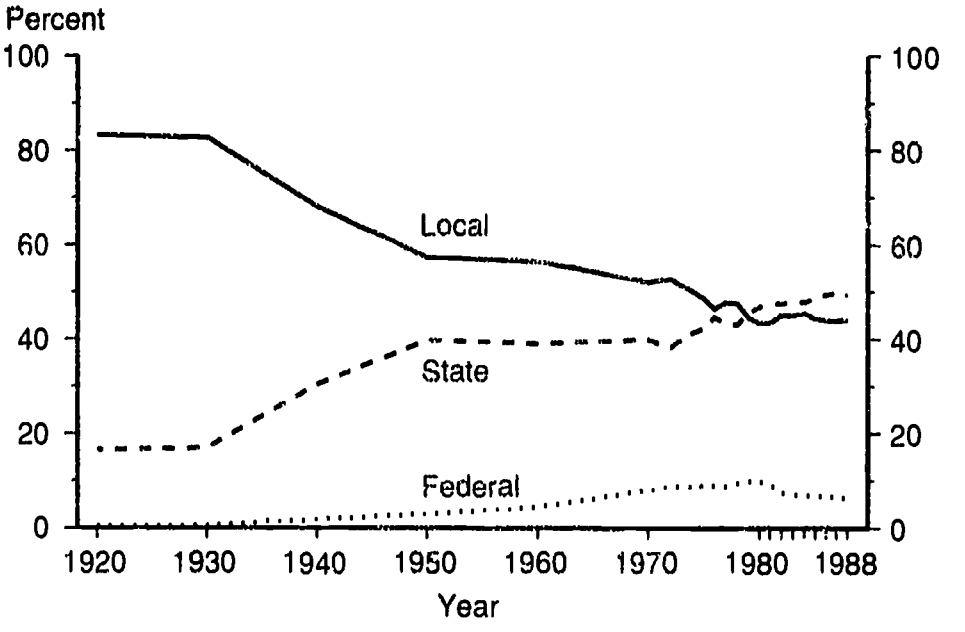
[2] Includes intermediate sources (e.g. gifts and tuition and transportation fees from patrons).

NOTE: Percents may not add to 100 due to rounding.
Some figures are revised from previously published data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989* (based on the Common Core of Data and its predecessors); Executive Office of the President, *Economic Report of the President*, 1989; Council of Economic Advisors, "Economic Indicators," January 1989.

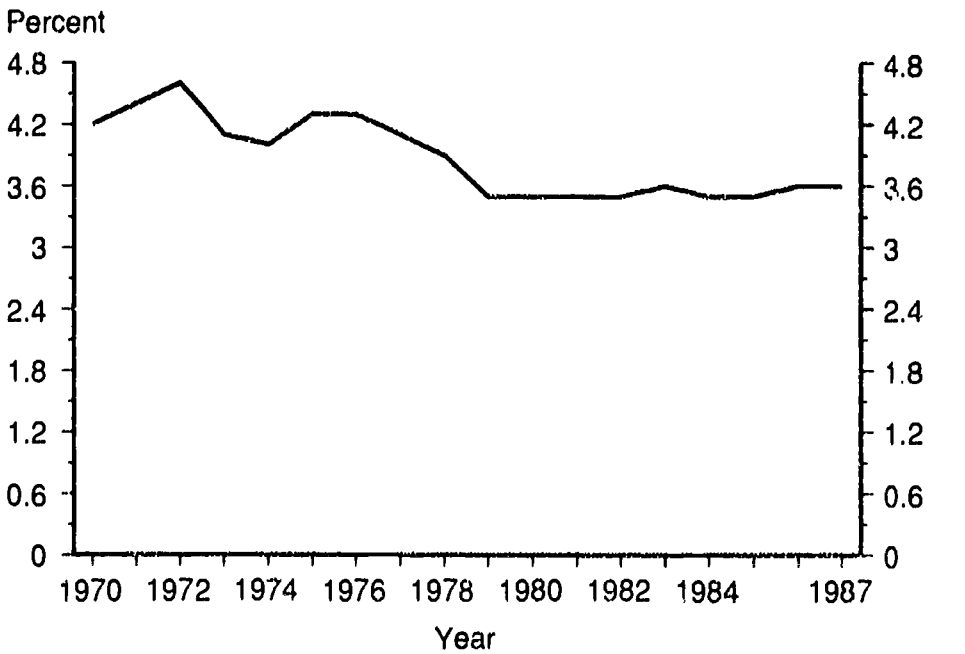
Chart 1:23 Public school revenues

Trends in revenue sources for public education: 1920–1988



Plotted points are 1920, 1930, 1940, 1950, 1960, 1970-1988.

Public school revenues as a percent of Gross National Product: 1970–1987



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989* (based on the Common Core of Data and its predecessors); Executive Office of the President, *Economic Report of the President*, 1989; Council of Economic Advisors, "Economic Indicators," January 1989.

H. Fiscal Characteristics

Indicator 1:24 Expenditure per pupil in public schools

One frequently used measure of financial resources available to the public schools is per pupil expenditure. This measure is the ratio of expenditures for education to average daily attendance. Data on trends in per pupil expenditure provide information to policymakers at all levels of government on the overall availability of resources. However, they do not provide information about individual school district expenditures, the quality or type of resources provided, or their impact on the learning process.

- **Between the 1949-50 and 1988-89 school years, total expenditure per pupil in constant dollars almost quadrupled, from $1,396 to $5,172; at the same time current expenditures more than quadrupled, from $1,127 to $4,719.**
- **All States recorded substantial percent increases in current expenditures between 1970 and 1988. The smallest percentage increase was more than 27 percent, the largest was over 130 percent (Table 1:24-2).**

Total and current expenditures per pupil in average daily attendance in public elementary and secondary schools

School year ending	Total expenditure[1] per pupil (in constant dollars[3])	Current expenditure[2] per pupil (in constant dollars[3])
1950	$1,396	$1,127
1954	1,659	1,252
1958	1,987	1,516
1962	2,184	1,770
1966	2,606	2,144
1970	3,212	2,744
1974	3,721	3,293
1978	4,066	3,702
1982	[4] 4,049	3,683
1986	[4] 4,755	4,389
1989	[4] 5,172	[5] 4,719

[1] Total expenditure includes all current expenditures, capital outlay, and interest on school debt.

[2] Current expenditure includes expenditures for operating local public schools, excluding capital outlay, and interest on debt.

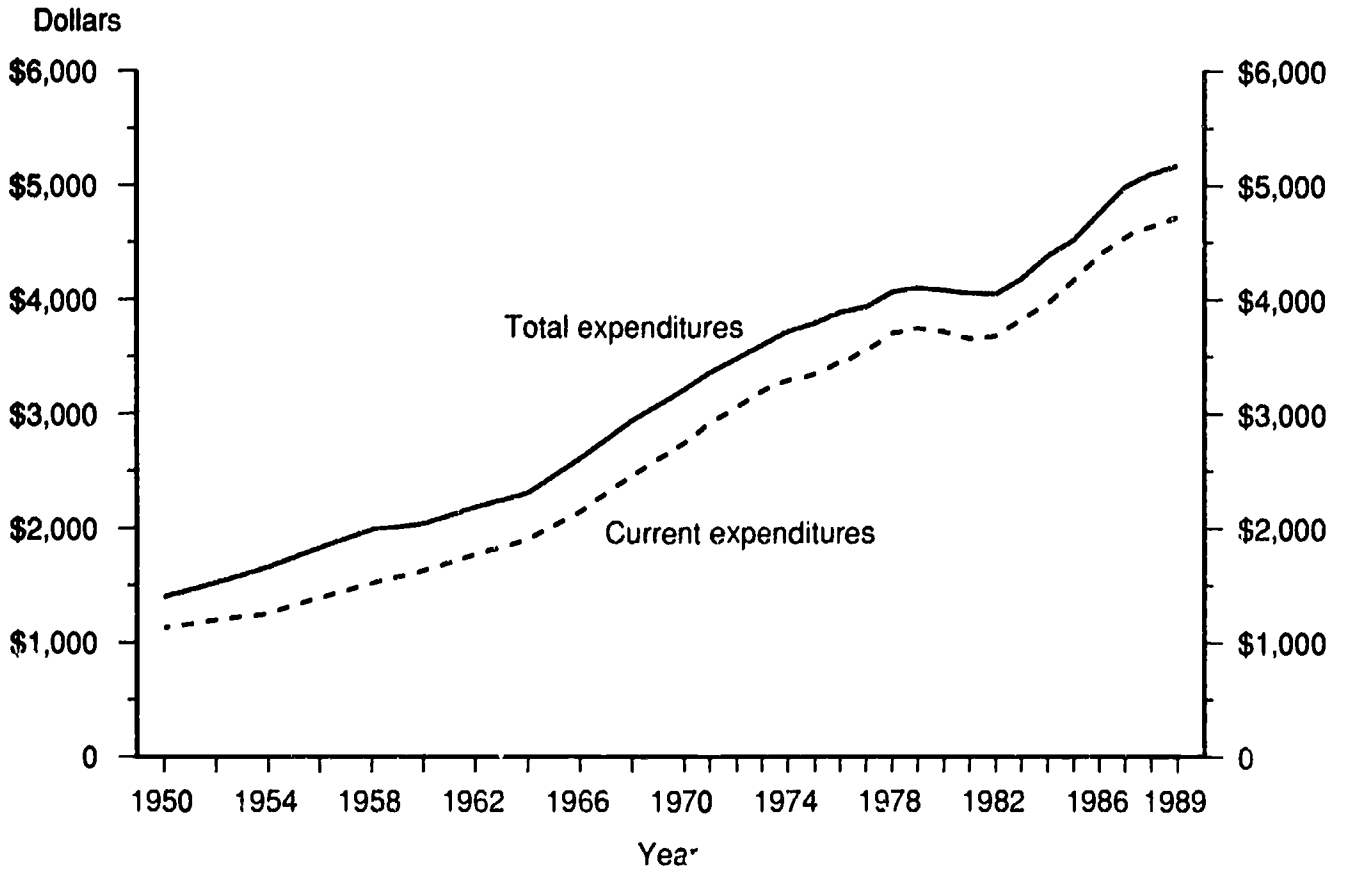
[3] Based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, and adjusted to a school year basis, 1989.

[4] Estimated.

[5] Preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, various years; *Revenues and Expenditures for Public Elementary and Secondary Education*, Common Core of Data survey, various years; and unpublished tabulations.

Chart 1:24 Total current expenditures per pupil in 1989 constant dollars: 1950–1989



NOTE: Current expenditure includes expenditures for operating local public schools, excluding capital outlay, and interest on debt.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, various years; *Revenues and Expenditures for Public Elementary and Secondary Education*, Common Core of Data survey, various years; and unpublished tabulations.

H. Fiscal Characteristics

Indicator 1:25 National index of public school revenues per pupil in relation to per capita income

Countries often report the percent of GNP devoted to education as a measure of fiscal resources going to education. The national index reported here is a refinement of that approach. The numerator is revenues per pupil,[1] a measure of the resources or services accorded to the typical pupil. The denominator is income per capita, a measure of the typical taxpayer's ability to pay. The index, therefore, reflects what is spent on the typical student relative to the taxpayer's ability to pay.

- **The national index gauging per pupil revenues in relationship to per capita income has risen 64 percent (in 1989 constant dollars) since the school year ending in 1940.**
- **Through the 1980s, the national index has held fairly constant at about 25-27 percent.**

National index of public school revenues per pupil in relation to per capita income: Selected school years ending 1940–1988

School year ending	National index	Total education revenue[1] (billions)	Public elementary/ secondary enrollment (millions)	Total revenue per pupil[2]	Personal income[2] (billions)	Total population (millions)	Per capita personal income[2]
1940	16.5	$ 20.9	25.4	$ 827.8	$ 655.9	131.0	$ 5,003.3
1950	15.5	29.0	25.1	1,154.1	1,108.0	149.2	7,423.9
1960	18.4	63.6	36.1	1,760.9	1,690.4	177.1	9,544.6
1970	23.2	135.6	45.6	2,975.1	2,601.2	202.7	12,832.5
1980	25.8	158.7	41.6	3,813.9	3,330.8	225.1	14,797.1
1981	26.1	155.4	41.0	3,790.8	3,314.6	227.8	14,549.7
1982	25.1	148.9	40.1	3,712.3	3,405.5	230.2	14,793.6
1983	25.8	152.2	39.7	3,834.0	3,459.4	232.5	14,878.7
1984	26.5	157.5	39.4	3,998.1	3,545.5	234.8	15,099.5
1985	26.7	165.2	39.3	4,202.1	3,736.6	237.1	15,759.2
1986	27.2	174.2	39.5	4,410.3	3,884.9	239.3	16,234.6
1987	27.3	181.5	39.8	4,560.2	4,035.8	241.7	16,696.9
1988	27.1	184.5	40.0	4,612.6	4,148.3	244.9	17,008.2

[1] Per pupil education revenues are the ratio of total public school education revenues (REV) to public school enrollment (ENR). Per capita income is the ratio of total personal income (INC) to total population (POP). The index can be expressed algebraically, therefore, as a function of 4 variables:

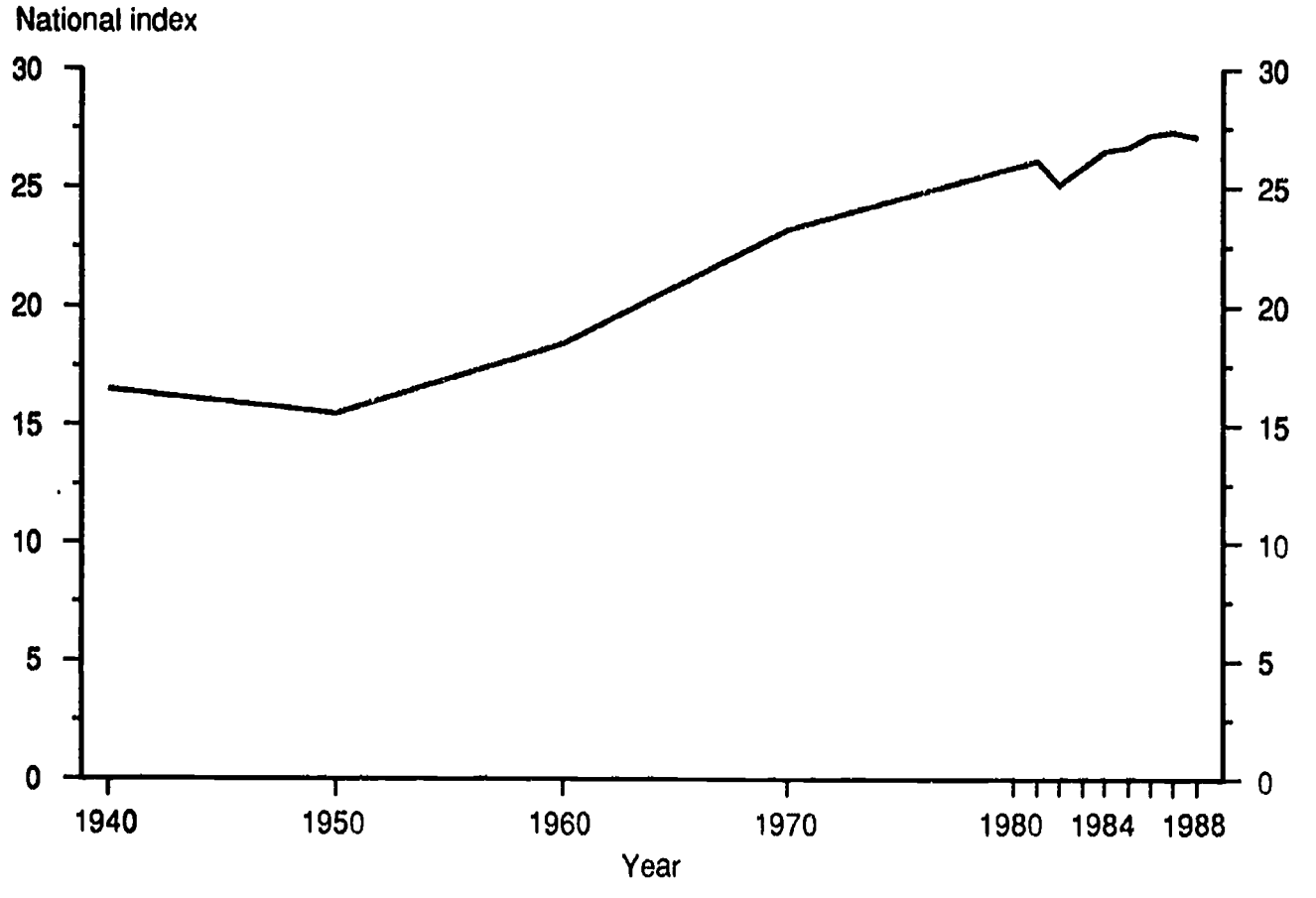
$$\text{National Index} = \frac{\text{Per pupil education revenues}}{\text{Per capita income}} \times 100 \text{ or } \frac{\text{REV/ENR}}{\text{INC/POP}} \times 100$$

[2] In 1989 constant dollars.

NOTE: This formula does not include private school enrollments or revenues, nor does it take into account other types of support for the public schools, such as volunteer work by parents.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989* (based on the Common Core of Data Survey, various years), and unpublished data; National Education Association, *Estimates of School Statistics, 1986-87*, 1987, copyrighted; U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929–82*, 1984, and *Regional Economic Information System*, August 1987.

Chart 1:25 **Trends in the national index of public school revenues per pupil in relation to per capita income: Selected years 1940–1988**



NOTE: Plotted points are 1940, 1950, 1960, 1970, 1980–88

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989* (based on the Common Core of Data Survey, various years); and unpublished data. U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929–82*, 1984, and *Regional Economic Information System*, August 1987.

I. Teachers and Administrators

Section I presents data on teachers and administrators in American education. Teachers and administrators play a central role in schooling. Data are presented regarding teachers as proportion of the school staff, average annual teacher salaries, the projected demand for new teacher hiring, and the characteristics of administrators.

Teachers make up a declining majority of the staff hired by pu schools. In 1950, teachers made up 70 percent of the staff hired by public schools; in 1988 that figure was down to about 53 percent. Other instructional staff—which includes teachers' aides, librarians, and guidance counselors—grew from 0.5 percent of the staff in 1950 to 10.6 in 1988. Support staff, including secretarial, transportation, plant operation and maintenance, and other support staff, rose from 23.3 percent in 1950 to 31.7 percent in 1988.

The 1990s are projected to be a time of increasing demands on the schools. As student enrollment rises, so will the demand for new hiring of teachers (*indicators 1:16 and 1:28*). The field of teaching is projected to require over 200,000 new teachers each year between 1990 and 2000. Yet, the number of students planning to make a career of teaching keeps dwindling (see *The Condition of Education, 1990,* volume 2, *indicator 2:17*).[1] Alternative Programs for certifying teachers have been implemented in some States to meet the expected shortage, but, at this time, very little data is available. Moreover, many argue that higher teacher salaries would increase the supply of qualified teachers. For all public school teachers, the average salary has risen almost 19 percent in constant dollars since 1980-81. Secondary school teachers, on average, continue to earn higher salaries than elementary teachers.

School administrators (principals) play a critical role in schools. Sc administrators are predominantly white males. For example, in public schools, m than 75 percent are males, and almost 87 percent are white. In private schools, more than half of the principals are female, while about 95 percent are white. In private schools, 30 percent of the administrators are under 40 years of age, while only about 19 percent of the public school principals are under 40.

Thus, the number of teachers as a percent of the total staff has been declining, but overall, many more additional new teachers will be required for the 1990s. Although teachers' salaries have been increasing, a smaller percentage of individuals appear

[1] Indicator 2:17 demonstrates that since 1972 the number of students majoring in education has dropped by almost 49 percent.

to be entering the teaching profession. Of the schools' administrators, most are white male, in a system where the students are increasingly minority.

Indicator 1:26 Staff employed in public schools

Today's public school systems employ a large number of personnel other than teachers, from district-level administrators to building maintenance workers. Diverse factors may cause the number and categories of staff to change over time. These factors include demographic changes as well as policy decisions at all levels of government. Examples include: (1) changes in enrollment; (2) changes in pupil/teacher ratios; (3) changes in legislative requirements; (4) the increased use of different types of instructional personnel; and (5) the addition of noninstructional tasks and responsibilities to schools' duties.

- **As a percent of the total staff, classroom teachers have dropped from 70 percent in 1950 to about 53 percent in 1980, but has changed little in the 1980s.**
- **The fastest growing segment of the public school staff is the "other instructional staff." This group has gone from 1.6 percent in 1960 to 10.9 percent in 1989.**
- **Administrators at the school and district levels comprised less than 5 percent of the public school staffs in 1989.**
- **The support staff increased by about 8 percentage points from 1950 to 1989.**

Percent full-time equivalent staff employed in public school systems, by type of staff: Selected years ending 1950–1989

Year ending	Principals and assistant principals	School district administrators[1]	Classroom teachers[2]	Other instructional staff[3]	Support staff[4]
1950	3.3	2.6	70.3	—	23.3
1960	3.0	2.0	64.8	1.6	28.2
1970	2.7	1.9	60.1	4.6	30.0
1981	2.6	1.9	52.4	10.8	29.5
1985	3.1	[5] 1.6	53.4	9.8	[5] 32.1
1986	3.1	[5] 1.6	53.0	10.1	[5] 32.1
1987	3.1	[5] 1.8	53.0	10.5	[5] 31.6
1988	2.9	[5] 1.7	52.9	10.5	[5] 32.0
1989	2.9	[5] 1.6	53.0	10.9	[5] 31.6

[1] Includes intermediate district staff, school district superintendents, assistants to superintendents, and supervisors of instruction.

[2] In 1950 includes a small number of teacher aides, librarians, guidance counselors, and psychological personnel. In 1960 includes a small number of teacher aides.

[3] Includes teacher aides, librarians, guidance counselors. Psychological personnel are included from 1950 to 1985.

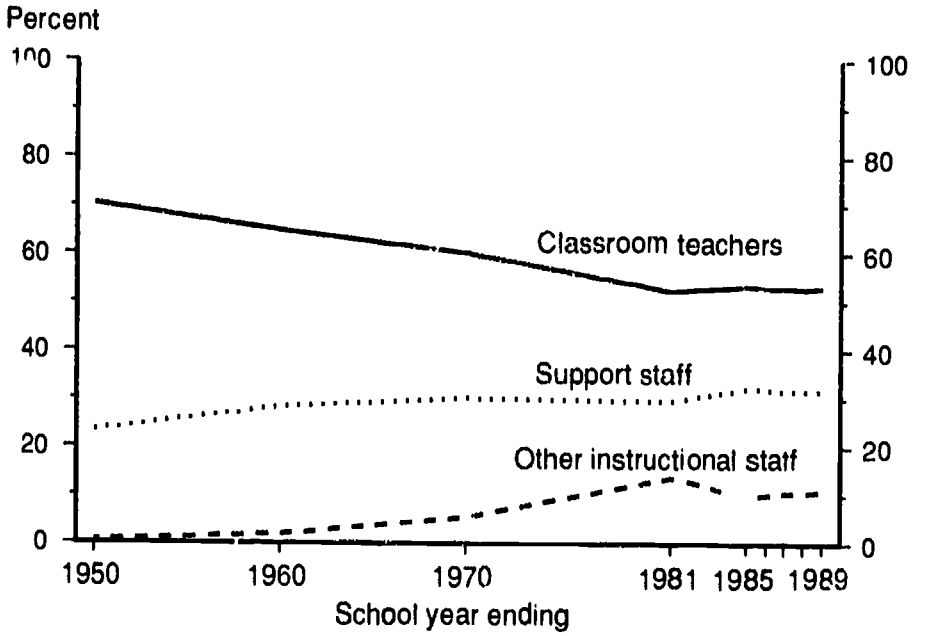
[4] Includes administrative support staff, transportation staff, food service, plant operation and maintenance, health, and recreational, and other staff.

[5] Data not comparable with figures for other years.

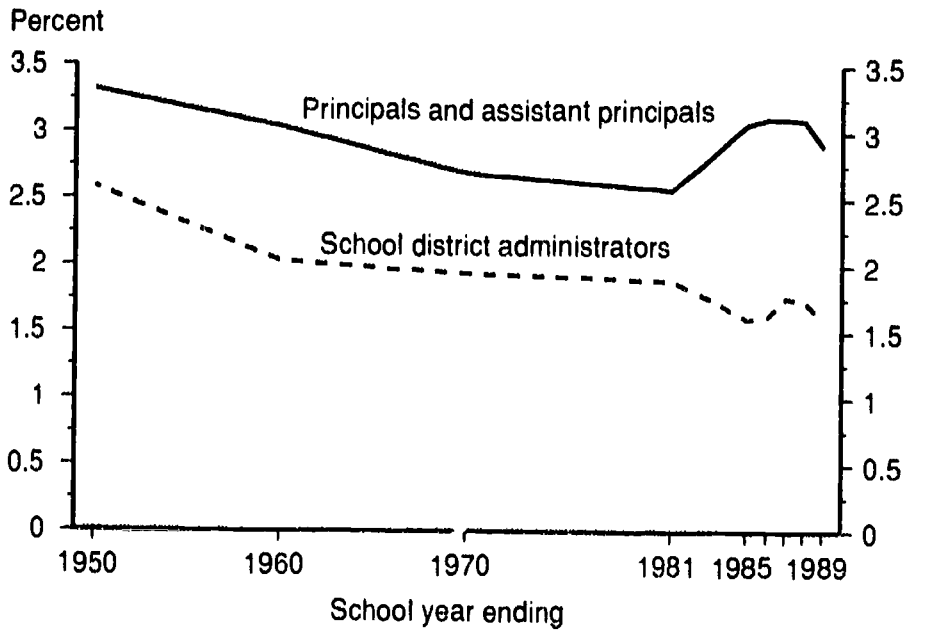
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, Common Core of Data survey, various years, and unpublished estimates; *Digest of Education Statistics*, forthcoming.

Chart 1:26 Type of total staff employed by the public schools: Selected school years ending 1950–1989

Types of staff as a percent of total staff: Selected school years ending 1950–1989



Administrators as a percent of the total staff: Selected years 1950–1989



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, Common Core of Data survey, various years, and unpublished estimates; *Digest of Education Statistics*, forthcoming.

Indicator 1:27 Average annual salaries of public school teachers

At all levels of government there has been much discussion about the supply of teachers for the public schools.[1] Often there is an emphasis on the need to improve the quality of students entering teacher education, and to enhance the status and professionalism of current teachers.[2] In response to this need, many States and local school districts have raised teacher salaries with the hope of attracting and retaining more and better teachers. Education officials in all parts of the country are experimenting with teacher salary structures, creating new career steps, career ladders, merit pay schemes, and new positions with greater authority and responsibility. In the past, such experiments have been associated with increases in teachers' salaries.[3]

- **Since 1981, average teacher salaries, adjusted for inflation, have risen almost 19 percent after declining nearly 14 percent between 1973 and 1981.**
- **Since 1960, average salaries for secondary school teachers have consistently remained higher than those for elementary teachers.**
- **Since 1960 the average salary of teachers in constant dollars has risen from $21,599 to $30,788.**

Estimated average annual salary of teachers in public elementary and secondary public schools: Selected years ending 1960–1988 (in 1989–90 constant dollars)

School year ending	All teachers	Percent change since 1960	Elementary teachers	Percent change since 1960	Secondary teachers	Percent change since 1960
1960	$21,599	—	$20,821	—	$22,814	—
1966	25,844	19.7	25,023	20.2	26,944	18.1
1970	29,088	34.7	28,367	36.2	29,982	31.4
1975	28,570	32.3	27,816	33.6	29,451	29.1
1980	26,163	21.1	25,506	22.5	26,964	18.2
1985	30,753	42.4	27,856	33.8	29,070	27.4
1988	30,788	42.5	30,106	44.6	31,722	39.0

— Not applicable.

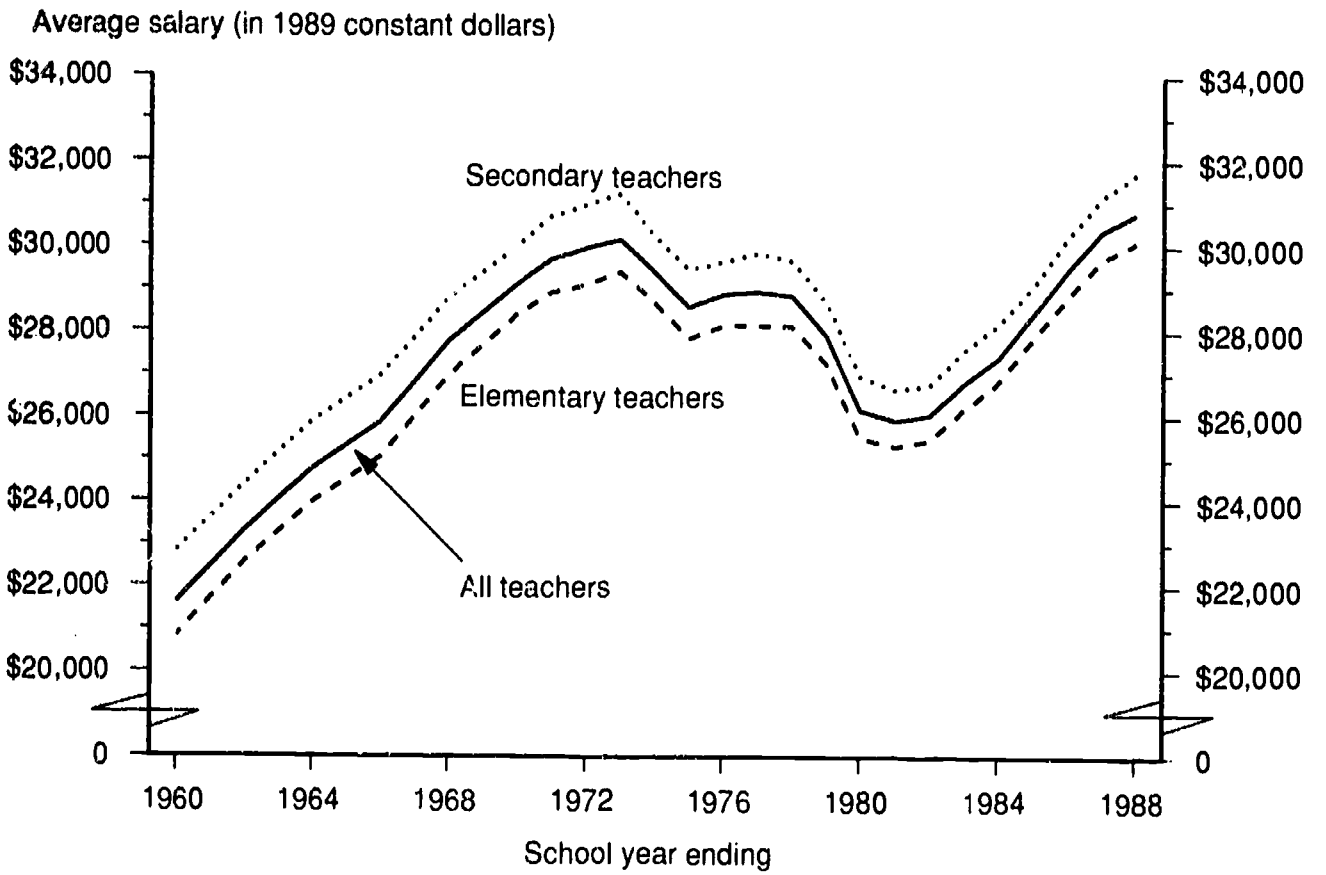
[1] Linda Darling-Hammond, "Teacher Supply Demand, and Standards," *Educational Policy 3, (1)*, (1989): 1-17.

[2] Linda Darling-Hammond and B. Berry, *The Evolution of Teacher Policy*, Center for Policy Research in Education, May 1987.

[3] Carnegie Forum on Education and the Economy, *A Nation Prepared*, 1986.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989*, National Education Association, *Estimates of School Statistics*, various years, and unpublished data. (Latest edition 1987–88, copyright 1988 by the National Education Association. All rights reserved.)

Chart 1:27 **Trends in average annual salary of public school teachers in constant 1989 dollars: Selected school years ending 1960–1988**



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989*, National Education Association, *Estimates of School Statistics*, various years, and unpublished data. (Latest edition 1987-88, copyright 1988 by the National Educatic- Association. All rights reserved.)

Indicator 1:28 Projected demand for hiring new teachers

Projections of the need for hiring teachers help school officials plan their budgets. Such projections also aid policymakers who must devise and implement incentives to attract qualified individuals to the teaching profession. And, as an indicator of the future job market, these projections help those considering teaching as a career. The projected demand for new hiring may change for a variety of reasons, including fluctuations in student enrollment, changes in pupil/teacher ratio, and teacher turnover.

- **The projected annual demand for new hiring of all teachers is expected to rise from 233,000 in 1990 to a high of 243,000 in the year 2000.**
- **During each year of the 1990s, the overall expected demand for new hiring of teachers is projected to exceed 200,000. Demand should be greatest at the elementary level.**

Projected annual demand for new teachers: Fall 1990–2000, and as a percentage change from 1989

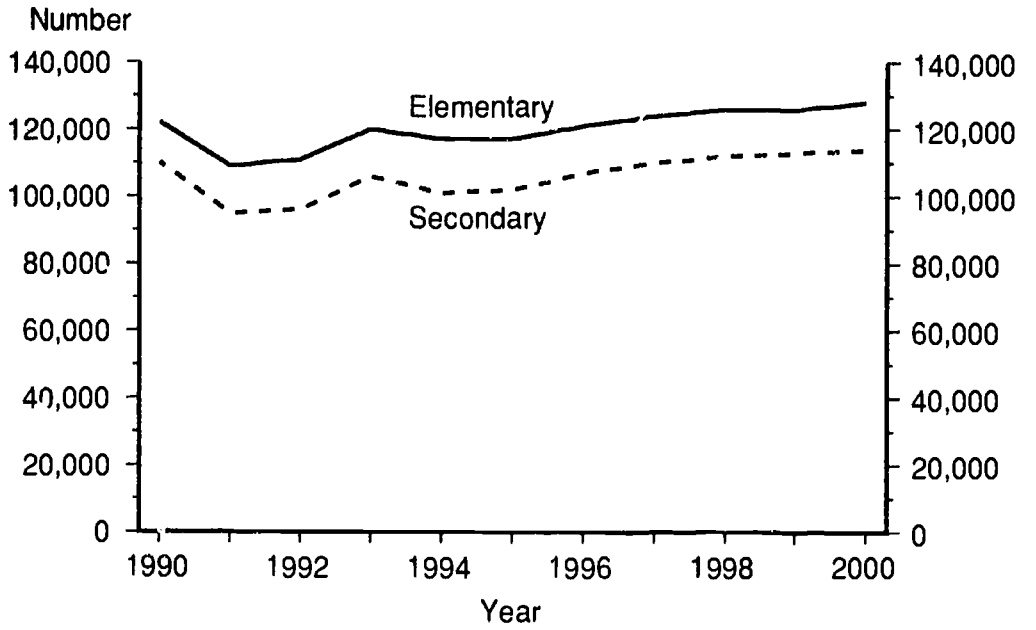
Fall of year	Total	Projected percentage change from 1990	Elementary	Projected percentage change from 1990	Secondary	Projected percentage change from 1990
1990	233,000	—	122,000	—	110,000	—
1991	205,000	-12.0	109,000	-10.7	95,000	-13.6
1992	208,000	-10.7	111,000	-9.0	96,000	-12.7
1993	226,000	-3.0	120,000	-1.6	106,000	-3.6
1994	218,000	-6.4	117,000	-4.1	101,000	-8.2
1995	219,000	-6.0	117,000	-4.1	102,000	-7.3
1996	227,000	-2.6	121,000	-0.8	107,000	-2.7
1997	234,000	0.4	124,000	1.6	110,000	0.0
1998	238,000	2.1	126,000	3.3	112,000	1.8
1999	239,000	2.6	126,000	3.3	113,000	2.7
2000	243,000	4.3	128,000	4.9	114,000	3.6

NOTE: Numbers are substantially revised from previous edition. This year's table includes projections for private as well as public schools.

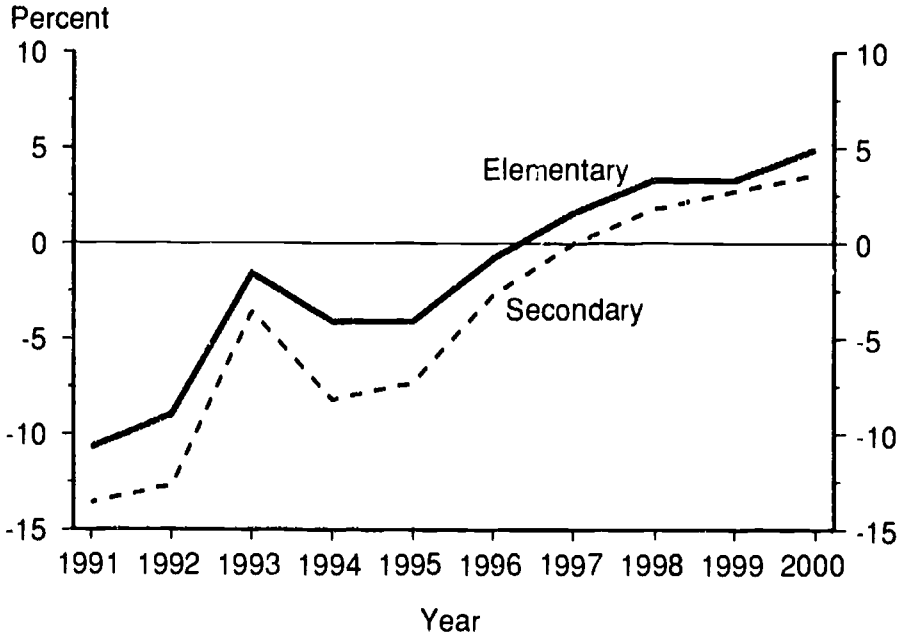
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2000*, 1989; and unpublished tabulations.

Chart 1:28 **Projected annual demand for new hiring of teachers in elementary and secondary schools: Fall 1990–2000**

Projected annual demand for new hiring of teachers



Percent change in the projected new hiring of teachers, relative to 1990



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2000*, 1989; and unpublished tabulations.

Indicator 1:29 Characteristics of school administrators

In a recent survey, a majority of teachers agreed that principals should have greater control over the rules governing the schools. A majority also favored every school establishing a "leadership committee" of principal, teachers and students to set and enforce rules; the principal having a role in budgetary decisions; and principal and teachers spending time together planning school activities[1]. Clearly, teachers feel that the school principal (or administrator) should play a critical role in schools today. However, until recently, little was known about principals. This indicator uses data from a new survey at NCES (the Schools and Staffing Survey) to portray characteristics of school administrators.

- **School administrators are predominantly white—89 and 95 percent in public and private schools, respectively.**
- **In private schools, 52 percent of the administrators are female; in public schools only about 25 percent are female.**

Selected characteristics of school administrator: school year 1987–1988

Characteristics	Public schools		Private schools	
	Number	Percent	Number	Percent
Total administrators	77,890	100	25,401	100
Sex				
Male	58,585	75.2	12,131	47.8
Female	19,118	24.4	13,243	52.1
Race/ethnicity				
American Indian, Aleut, Eskimo	821	1.1	—	—
Asian or Pacific Islander	434	0.6	—	—
Black	6,696	8.6	771	3.0
White	69,048	88.6	24,056	94.7
Ethnic origin				
Hispanic[2]	2,483	3.2	629	2.5
Non-Hispanic	73,245	94.0	24,167	95.1
Age				
Under 40	14,430	18.5	7,608	30.0
40 to 44	17,775	22.8	5,352	21.1
45 to 45	16,408	21.1	4,497	17.7
50 to 54	14 936	19.2	2,979	11.7
55 or over	13,891	17.8	4,703	18.5

— Too few sample cases (fewer than 30) for a reliable estimate.

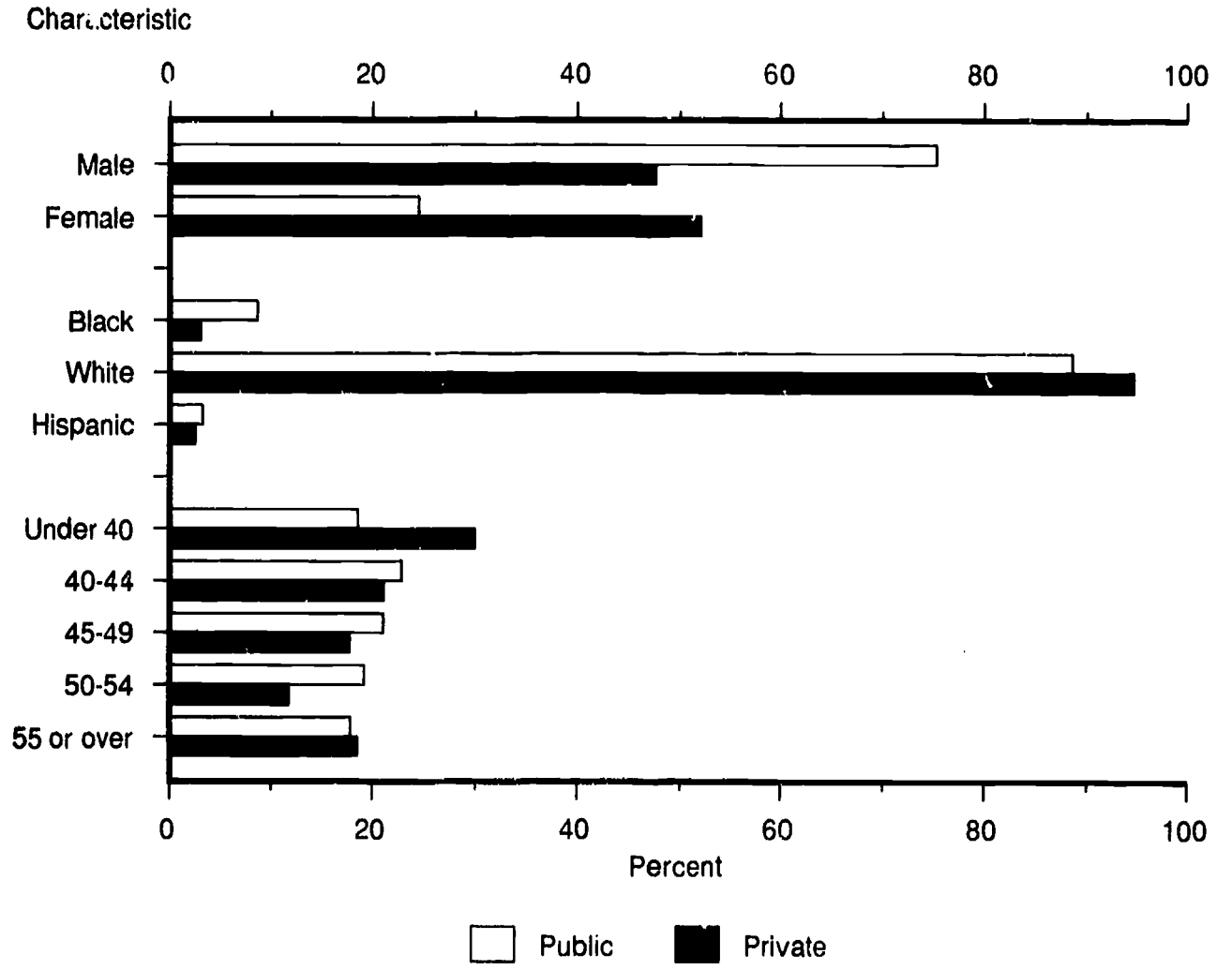
NOTE: Details may not add to totals due to rounding or missing values in cells with too few sample cases, or item nonresponse. Cell entries may be underestimates due to item nonresponse.

[1] *The Metropolitan Life Survey of the American Teacher: Preparing Schools for the 1990s*, 1989.

[2] Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffings survey, 1989.

Chart 1:29 Selected characteristics of school administrators



SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffings survey, 1989.

Table 1:1-1 Percent of total 1 or more years below modal grade: 1970–1985 (3-year average)

Year	8-year-olds		13-year-olds	
	Male	Female	Male	Female
1970	18.7	13.1	27.7	18.3
1971	17.7	13.1	27.3	18.0
1972	18.0	12.7	27.3	18.3
1973	17.9	12.1	27.4	18.3
1974	18.0	12.3	27.1	18.1
1975	17.6	12.7	25.2	17.3
1976	16.7	12.6	24.1	16.8
1977	17.2	12.9	23.5	16.2
1978	18.9	13.2	23.8	16.8
1979	20.2	14.4	24.9	17.1
1980	21.1	15.2	26.0	18.6
1981	21.7	16.5	28.0	19.8
1982	23.2	16.7	30.5	21.2
1983	23.9	17.0	32.0	21.9
1984	24.4	17.7	32.6	22.5
1985	24.9	18.4	31.5	23.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations.

Table 1:1-2 Standard errors for estimated percentages in text table in indicator 1:1

	8-year-olds				13-year-olds			
	White		Black		White		Black	
Year*	Male	Female	Male	Female	Male	Female	Male	Female
1970	0.8	0.7	2.3	2.0	0.9	0.8	2.8	2.5
1971	0.8	0.7	2.3	2.0	0.8	0.6	2.8	2.5
1972	0.8	0.7	2.4	2.0	0.8	0.6	2.8	2.4
1973	0.8	0.7	2.4	2.1	0.8	0.6	2.8	2.5
1974	0.9	0.7	2.4	2.0	0.8	0.6	2.8	2.5
1975	0.9	0.8	2.2	2.2	0.8	0.6	2.7	2.4
1976	0.9	0.8	2.2	2.2	0.8	0.6	2.6	2.3
1977	0.9	0.8	2.3	2.2	0.8	0.6	2.6	2.3
1978	0.9	0.8	2.4	2.1	0.8	0.6	2.6	2.4
1979	0.9	0.8	2.4	2.1	0.9	0.7	2.7	2.4
1980	1.0	0.9	2.4	2.2	1.0	0.8	2.8	2.5
1981	1.0	0.9	2.4	2.2	1.0	0.8	2.7	2.5
1982	1.0	0.9	2.4	2.2	1.0	0.8	2.8	2.5
1983	1.0	0.9	2.6	2.2	1.0	0.9	2.8	2.5
1984	1.0	0.9	2.7	2.3	1.1	0.9	2.9	2.7
1985	1.0	1.0	2.8	2.3	1.1	1.0	2.9	2.7

* The year represents the middle 3-years over which rates are averaged. The years 1969 and 1986 are 2-year averages.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations.

Table 1:1-3 Standard errors for estimated percentages in table 1:1-1

Year	8-year-olds		13-year-olds	
	Male	Female	Male	Female
1970	1.3	1.1	1.5	1.3
1971	1.3	1.2	1.5	1.3
1972	1.3	1.2	1.5	1.3
1973	1.3	1.2	1.5	1.3
1974	1.4	1.2	1.5	1.3
1975	1.4	1.2	1.5	1.3
1976	1.4	1.2	1.4	1.3
1977	1.4	1.2	1.4	1.3
1978	1.4	1.3	1.5	1.3
1979	1.5	1.3	1.5	1.4
1980	1.5	1.4	1.6	1.4
1981	1.6	1.4	1.6	1.5
1982	1.6	1.4	1.6	1.5
1983	1.6	1.5	1.6	1.5
1984	1.6	1.5	1.7	1.5
1985	1.6	1.5	1.7	1.6

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations.

Indicator 1:2

Table 1:2-1 Average event dropout rate from grades 10-12, ages 14-24, by race/ethnicity and sex: 1968–1987 (3-year average)

Year[1]	All races		White		Black		Hispanic[2]
	Male	Female	Male	Female	Male	Female	Both sexes[3]
				Percent			
1968	—	—	4.6	4.7	10.0	9.5	—
1969	—	—	4.6	5.0	11.0	9.5	—
1970	—	—	4.9	5.1	10.8	8.2	—
1971	—	—	5.1	5.4	10.7	8.5	—
1972	—	—	5.6	5.4	10.7	8.5	—
1973	—	—	6.2	5.5	10.9	10.0	10.2
1974	6.6	6.0	6.0	5.4	10.3	9.9	10.2
1975	6.4	5.8	6.1	5.3	9.2	9.2	9.2
1976	6.3	5.8	6.0	5.5	8.2	8.1	8.7
1977	7.0	5.7	6.7	5.3	9.0	8.4	9.1
1978	7.0	6.2	6.8	5.6	8.7	10.1	10.4
1979	6.9	6.0	6.6	5.4	8.9	9.9	11.5
1980	6.5	6.0	6.2	5.3	8.3	10.0	11.1
1981	6.1	5.4	5.8	4.9	8.8	8.4	10.5
1982	5.8	5.2	5.4	4.7	8.5	7.9	10.0
1983	5.6	4.8	5.3	4.6	7.5	6.2	10.1
1984	5.5	4.8	5.2	4.5	7.1	6.4	10.2
1985	5.5	4.8	5.0	4.6	6.5	6.0	10.9
1986	4.9	4.7	4.7	4.3	6.6	7.0	9.2
1987	5.0	4.6	4.9	4.3	6.2	7.0	9.5

— Not available.

[1] The year represents the middle of the three years over which rates are averaged. Thus the rate for 1987 is the average of the single-year rates for 12-month periods ending 1986, 1987, 1988.

[2] Hispanics may be of any race.

[3] Figures by sex are not available.

SOURCE: R. Kominski, "What is the National High School Dropout Rate?," unpublished paper, March 1989; U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations; U.S. Department of Education, National Center for Education Statistics, Mary J. Frase, "Dropout Rates in the United States: 1988," September 1989.

Table 1:2-2 Standard errors for estimated percentages in table 1:2-1

Year[1]	All races		White		Black		Hispanic[2]
	Male	Female	Male	Female	Male	Female	Both sexes[3]
			Percent				
1970	—	—	0.3	0.3	1.1	1.0	—
1971	—	—	0.3	0.3	1.1	0.9	—
1972	—	—	0.3	0.3	1.1	0.9	—
1973	—	—	0.3	0.3	1.1	1.0	1.4
1974	0.3	0.3	0.3	0.3	1.0	1.0	1.4
1975	0.3	0.3	0.3	0.3	1.0	0.9	1.3
1976	0.3	0.3	0.3	0.3	0.9	0.9	1.2
1977	0.3	0.3	0.3	0.3	0.9	0.9	1.2
1978	0.3	0.3	0.3	0.3	0.9	0.9	1.3
1979	0.3	0.3	0.3	0.3	0.9	0.9	1.3
1980	0.3	0.3	0.3	0.3	0.9	0.9	1.3
1981	0.3	0.3	0.3	0.3	0.9	0.9	1.2
1982	0.3	0.3	0.3	0.3	1.0	0.9	1.3
1983	0.3	0.3	0.3	0.3	0.9	0.8	1.3
1984	0.3	0.3	0.3	0.3	0.9	0.8	1.3
1985	0.3	0.3	0.3	0.3	0.9	0.8	1.1

— Not available.

[1] The year represents the middle of the 3 years over which rates are averaged. Thus the rate for 1987 is the average of the single-year rates for 12-month periods ending 1986, 1987, 1988.

[2] Hispanics may be of any race.

[3] Figures by sex are not available.

SOURCE: R. Kominiski, "What is the National High School Dropout Rate?," unpublished paper, March 1989; U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years, and unpublished tabulations; U.S. Department of Education, National Center for Education Statistics, Mary J. Frase. "Dropout Rates in the United States: 1988," September 1989.

Indicator 1:3

Table 1:3-1 Percent of 25- to 29-year-olds who have completed 12 years of school by race/ethnicity and sex: 1965–1987

Year	All races			White			Black			Hispanic*		
	Both	Male	Female	Both	Male	Female	Both	Male	Female	Both	Male	Female
1965	70.3	70.5	70.1	72.8	72.7	72.8	50.3	50.3	50.4	—	—	—
1966	71.0	70.9	71.2	73.8	73.2	74.4	47.9	48.9	47.0	—	—	—
1967	72.6	72.4	72.9	74.8	74.3	75.3	53.5	51.7	55.0	—	—	—
1968	73.2	73.7	72.7	75.3	75.5	75.0	55.7	58.1	53.6	—	—	—
1969	74.7	75.6	73.8	77.0	77.5	76.6	55.9	59.8	52.3	—	—	—
1970	75.4	76.6	74.2	77.8	79.2	76.4	56.3	54.5	57.9	—	—	—
1971	77.2	78.1	76.4	79.5	80.8	78.3	57.6	54.1	60.7	—	—	—
1972	79.8	80.5	79.2	81.5	82.3	80.8	64.2	61.8	66.2	—	—	—
1973	80.2	80.6	79.8	82.0	82.4	81.6	64.1	63.1	64.9	—	—	—
1974	84.6	88.8	80.8	83.4	84.1	82.7	68.3	71.1	66.0	52.3	55.1	49.9
1975	83.1	84.5	81.8	84.4	85.7	83.2	71.0	72.2	70.1	51.6	51.1	52.1
1976	84.7	86.0	83.5	85.9	87.3	84.6	73.9	72.5	74.9	58.0	57.6	58.4
1977	85.4	86.6	84.2	86.8	87.6	86.0	74.5	77.5	72.0	58.3	62.1	54.8
1978	85.3	86.0	84.6	86.3	86.8	85.8	77.3	78.5	76.3	56.6	58.5	54.8
1979	85.6	86.3	84.9	87.0	87.6	86.4	74.7	73.9	75.4	57.0	55.5	58.4
1980	85.4	85.4	85.5	86.9	86.8	87.0	76.5	74.7	78.0	57.9	56.9	59.0
1981	86.3	86.5	86.1	87.5	87.6	87.5	77.2	78.4	76.3	59.8	59.1	60.4
1982	86.2	86.4	86.1	86.9	87.0	86.8	80.9	80.5	81.3	60.8	60.5	61.2
1983	86.0	86.0	86.0	86.9	86.9	86.9	79.4	78.8	79.8	58.5	57.9	59.1
1984	85.9	85.6	86.3	86.9	86.8	87.0	79.0	76.0	81.5	54.2	56.7	51.8
1985	86.2	85.9	86.4	86.8	86.4	87.3	80.6	80.8	80.4	60.9	58.6	63.0
1986	86.1	85.9	86.4	86.5	85.6	87.4	83.4	86.6	80.7	59.1	58.2	60.0
1987	86.0	85.5	86.4	86.3	85.6	87.1	83.3	84.8	82.0	59.9	58.6	61.2

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States: March . . .," various years.

Table 1:3-2 Standard errors for estimated percentages in table 1:3-1

Year	All races			White			Black			Hispanic*		
	Both	Male	Female	Both	Male	Female	Both	Male	Female	Both	Male	Female
1965	0.6	0.9	0.9	0.6	0.9	0.9	2.2	3.2	2.9	—	—	—
1966	0.6	0.9	0.8	0.6	0.9	0.9	2.1	3.2	2.9	—	—	—
1967	0.6	0.8	0.8	0.6	0.9	0.8	2.1	3.1	2.9	—	—	—
1968	0.6	0.8	0.8	0.6	0.8	0.8	2.1	3.0	2.8	—	—	—
1969	0.5	0.8	0.8	0.6	0.8	0.8	2.0	2.9	2.8	—	—	—
1970	0.5	0.7	0.7	0.5	0.7	0.8	2.0	2.8	2.7	—	—	—
1971	0.5	0.7	0.7	0.5	0.7	0.7	1.9	2.8	2.6	—	—	—
1972	0.5	0.7	0.7	0.5	0.7	0.7	1.9	2.9	2.5	—	—	—
1973	0.5	0.6	0.6	0.5	0.7	0.7	1.8	2.7	2.5	—	—	—
1974	0.4	0.5	0.6	0.4	0.6	0.6	1.7	2.5	2.4	2.6	3.7	3.5
1975	0.4	0.6	0.6	0.4	0.6	0.6	1.7	2.4	2.2	2.5	3.6	3.6
1976	0.4	0.5	0.6	0.4	0.5	0.6	1.6	2.4	2.1	2.5	3.6	3.4
1977	0.4	0.5	0.5	0.4	0.5	0.6	1.5	2.1	2.1	2.4	3.5	3.4
1978	0.4	0.5	0.5	0.4	0.5	0.6	1.4	2.1	1.9	2.3	3.3	3.2
1979	0.4	0.5	0.5	0.4	0.5	0.5	1.5	2.2	1.9	2.3	3.4	3.1
1980	0.4	0.6	0.5	0.4	0.6	0.6	1.4	2.2	1.9	2.3	3.3	3.2
1981	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.0	1.9	2.2	3.2	3.0
1982	0.4	0.5	0.5	0.4	0.6	0.6	1.3	1.9	1.7	2.1	3.1	2.9
1983	0.4	0.5	0.5	0.4	0.5	0.5	1.3	1.9	1.8	2.1	3.1	3.0
1984	0.4	0.5	0.5	0.4	0.5	0.5	1.3	2.0	1.7	2.1	3.0	3.0
1985	0.4	0.5	0.5	0.4	0.6	0.5	1.2	1.8	1.7	1.9	2.8	2.6
1986	0.4	0.5	0.5	0.4	0.6	0.5	1.2	1.6	1.7	1.8	2.6	2.6
1987	0.4	0.5	0.5	0.4	0.6	0.5	1.2	1.7	1.6	1.8	2.5	2.5

— Not available.

* Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "Educational Attainment in the United States: March . . .," various years.

Table 1:4-1 Percent of students at or above the five levels of reading proficiency: 1971–1988

Reading skills and strategies	Year	Age 9	Age 13	Age 17
Rudimentary (Level 150)	1971	90.5	99.8	99.6
	1975	93.2	99.7	99.7
	1980	94.6	99.9	99.8
	1984	92.5	99.8	100.0
	1988	93.0	99.8	100.0
Basic (Level 200)	1971	58.2	92.8	95.9
	1975	62.2	93.3	96.4
	1980	67.6	94.9	97.2
	1984	61.9	94.1	98.3
	1988	62.5	95.1	98.9
Intermediate (Level 250)	1971	15.3	57.9	78.5
	1975	14.6	58.6	80.4
	1980	17.2	60.9	81.0
	1984	17.0	59.1	83.1
	1988	17.0	58.0	86.2
Adept (Level 300)	1971	1.0	9.8	39.2
	1975	0.5	10.3	39.1
	1980	0.6	11.3	39.1
	1984	1.0	10.9	40.0
	1988	1.2	10.6	41.8
Advanced (Level 350)	1971	0.0	0.1	6.6
	1975	0.0	0.2	6.1
	1980	0.0	0.2	6.1
	1984	0.0	0.2	5.3
	1988	0.0	0.2	5.5

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971-88: Trends From the Nation's Report Card,* 1990.

Table 1:4-2 Standard errors for estimated general reading proficiency means in text table in indicator 1:4

	Age 9			
	Total	White	Black	Hispanic
1971	1.0	1.0	1.6	—
1975	0.7	0.7	1.1	2.3
1980	1.1	0.9	1.6	3.3
1984	1.0	0.8	1.2	1.6
1988	1.2	1.5	2.6	3.9
	Age 13			
	Total	White	Black	Hispanic
1971	0.9	0.8	1.1	—
1975	0.8	0.7	1.2	3.4
1980	0.9	0.6	1.5	2.1
1984	0.7	0.6	1.2	1.6
1988	0.9	1.0	2.3	3.5
	Age 17			
	Total	White	Black	Hispanic
1971	1.2	1.0	1.7	—
1975	0.8	0.6	1.9	3.6
1980	1.4	1.2	2.0	3.3
1984	0.9	0.7	1.2	1.9
1988	1.1	1.3	2.6	4.0

SOURCE: National Assessment of Educational Progress, *The Reading Report Card, 1971-88: Trends From the Nation's Report Card*, 1990.

Table 1:4-3 Standard errors for the percentage of students at or above the five levels of reading proficiency

Reading levels	Year	Age 9	Age 13	Age 17
Rudimentary (Level 150)	1971	0.5	0.0	(*)
	1975	0.3	0.0	(*)
	1980	0.4	0.0	(*)
	1984	0.4	0.0	(*)
	1988	0.6	0.1	(*)
Basic (Level 200)	1971	0.9	0.4	0.3
	1975	0.8	0.4	0.3
	1980	0.9	0.4	0.4
	1984	1.0	0.3	0.1
	1988	1.2	0.5	0.2
Intermediate (Level 250)	1971	0.5	1.1	0.9
	1975	0.5	1.0	0.7
	1980	0.8	1.0	1.0
	1984	0.6	0.7	0.7
	1988	0.9	1.1	0.7
Adept (Level 300)	1971	0.1	0.5	1.0
	1975	0.1	0.4	0.6
	1980	0.1	0.4	1.5
	1984	0.1	0.4	0.9
	1988	0.2	0.7	1.3
Advanced (Level 350)	1971	(*)	(*)	0.4
	1975	(*)	(*)	0.2
	1980	(*)	(*)	0.4
	1984	(*)	(*)	0.2
	1988	(*)	(*)	0.4

* Virtually all 17-year-olds demonstrated proficiency at or above level 150. Virtually no 9- or 13-year-olds demonstrated reading proficiency at level 350.

SOURCE: National Assessment of Educational Progress. *The Reading Report Card. 1971-1988. Trends From the Nation's Report Card.* 1990.

Table 1:5-1 National Assessment of Educational Progress: Standard errors for estimated percentages in text table in indicator 1:5

	White		
Year	Grade 4	Grade 8	Grade 11
1984	1.9	1.5	2.1
1988	1.6	1.0	1.3
	Black		
Year	Grade 4	Grade 8	Grade 11
1984	4.0	4.1	4.1
1988	3.1	2.3	2.6
	Hispanic		
Year	Grade 4	Grade 8	Grade 11
1984	4.5	6.9	4.6
1988	3.6	3.2	3.2

NOTE: The Average Response Method (ARM) provides an estimate of average writing achievement for each respondent as if he or she took 11 of the 12 writing tasks given, and as if NAEP had computed average achievement across that set of tasks.

SOURCE: National Assessment of Educational Progress, *The Writing Report Card, 1984-1988: Findings From the Nation's Report Card.*

Indicator 1:6

Table 1:6-1 Percent of 9-, 13-, and 17-year-old students at or above the five mathematics proficiency levels: 1978, 1982, and 1986

Proficiency level	Year	Age 9	Age 13	Age 17
Level 150	1978	96.5	99.8	100.0
Simple arithmetic facts	1982	97.2	99.9	100.0
	1986	97.8	100.0	100.0
Level 200	1978	70.3	94.5	99.8
Beginning skills and	1982	71.5	97.6	99.9
understanding	1986	[1] 73.9	[1] 98.5	99.9
Level 250	1978	19.4	64.9	92.1
Basic operations and	1982	18.7	71.6	92.9
one-step problem solving	1986	20.8	[1] 73.1	[2] 96.0
Level 300	1978	0.8	17.9	51.4
Moderately complex	1982	0.6	17.8	48.3
procedures and reasoning	1986	0.6	15.9	51.1
Level 350	1978	0.0	0.9	7.4
Multistep problem	1982	0.0	0.5	5.4
solving and algebra	1986	0.0	0.4	6.4

[1] Statistically significant difference from 1978 at the 0.05 level.

[2] Statistically significant difference from 1978 and 1982 at the 0.05 level.

SOURCE: National Assessment of Educational Progress, *The Mathematics Report Card: Are We Measuring Up?*, 1988.

Table 1:6-2 Percent of 9-, 13-, and 17-year-old students at or above the five science proficiency levels: 1977, 1982, and 1986

Proficiency level	Year	Age 9	Age 13	Age 17
Level 150	1977	93.6	98.6	99.8
Knows everyday	1982	95.0	99.6	99.7
science facts	1986	[1] 96.3	99.8	99.9
Level 200	1977	67.9	85.9	97.2
Understands simple	1982	70.4	89.6	95.8
scientific principles	1986	[1] 71.4	[1] 91.8	96.7
Level 250	1977	26.2	49.2	81.8
Applies basic	1982	24.8	51.5	76.8
scientific information	1986	27.6	[1] 53.4	[2] 80.6
Level 300	1977	3.5	10.9	41.7
Analyzes scientific	1982	2.2	9.4	37.5
procedures and data	1986	3.4	9.4	[2] 41.4
Level 350	1977	0.0	0.1	0.1
Integrates specialized	1982	0.7	0.4	0.2
scientific information	1986	8.5	7.2	7.5

[1] Statistically significant difference from 1977 at the 0.05 level.

[2] Statistically significance difference from 1982 at the 0.05 level.

NOTE: No significance test is reported when the proportion is either >95.0 or <5.0.

SOURCE: National Assessment of Educational Progress, *The Science Report Card, Elements of Risk and Recovery*, 1988.

Table 1:6-3 Standard errors for estimated percentages in the text tables in indicator 1:6

Year	Age 9	Age 13	Age 17
		Mathematics	
1978	0.8	1.1	0.9
1982	1.1	1.1	0.9
1986	1.0	1.2	0.9

Year	Age 9	Age 13	Age 17
		Science	
1970	1.2	1.1	1.0
1973	1.2	1.1	1.0
1977	1.2	1.1	1.0
1982	1.8	1.3	1.1
1986	1.2	1.4	1.4

SOURCE: National Assessment of Educational Progress, *The Mathematics Report Card, Are We Measuring Up?, 1988; and The Science Report Card, Elements of Risk and Recovery*, 1988.

Table 1:6-4 Standard errors for estimated percentages in table 1:6-1

Proficiency levels	Year	Age 9	Age 13	Age 17
Level 150	1978	0.2	0.0	0.0
Simple arithmetic facts	1982	0.3	0.0	0.0
	1986	0.2	0.0	0.0
Level 200	1978	0.9	0.4	0.0
Beginning skills	1982	1.1	0.4	0.1
and understanding	1986	1.1	0.2	0.1
Level 250	1978	0.6	1.2	0.5
Basic operations and	1982	0.8	1.2	0.5
one-step problem solving	1986	0.9	1.5	0.4
Level 300	1978	0.1	0.7	1.1
Moderately complex	1982	0.1	0.9	1.2
procedures and reasoning	1986	0.2	1.0	1.2
Level 350	1978	0.0	0.2	0.4
Multistep problem	1982	0.0	0.1	0.4
solving and algebra	1986	0.0	0.1	0.4

SOURCE: National Assessment of Educational Progress, *The Mathematics Report Card: Are We Measuring Up?*, 1988.

Table 1:6-5 Standard errors for estimated percentages in table 1:6-2

Proficiency level	Year	Age 9	Age 13	Age 17
Level 150	1977	0.5	0.1	0.0
Knows everyday	1982	0.5	0.1	0.1
science facts	1986	0.3	0.1	0.1
Level 200	1977	1.1	1.6	1.0
Understands simple	1982	0.7	0.7	0.9
scientific principles	1986	0.2	0,4	0.4
Level 250	1977	0.7	1.1	0.7
Applies basic	1982	1.7	1.4	1.0
scientific information	1986	1.0	1.4	1.2
Level 300	1977	0.2	0.4	0.8
Analyzes scientific	1982	0.6	0.6	0.8
procedures and data	1986	0.4	0.7	1.4
Level 350	1977	0.0	0.1	0.4
Integrates specialized	1982	0.1	0.1	0.4
scientific information	1986	0.1	0.1	0.6

SOURCE: National Assessment of Educational Progress, *The Science Report Card, Elements of Risk and Recovery*, 1988.

Table 1:7-1 Percentages of 13-year-old students in six countries performing at or above each level of the mathematics proficiency scale: 1988

Country/province	300 (Add and subtract)	400 (Simple problems)	500 (Two-step problems)	600 (Complex concepts)	700 (Advanced concepts)
Korea	100	95	78	40	5
Quebec (French)	100	97	73	22	2
British Columbia	100	95	69	24	2
Quebec (English)	100	97	67	20	1
New Brunswick (English)	100	95	65	18	1
Ontario (English)	99	92	58	16	1
New Brunswick (French)	100	95	58	12	<1
Spain	99	91	57	14	1
United Kingdom	98	87	55	18	2
Ireland	98	86	55	14	<1
Ontario (French)	99	85	40	7	0
United States	97	78	40	9	1

SOURCE: International Assessment of Educational Progress, *A World of Differences, International Assessment of Mathematics and Science*, 1989.

Table 1:7-2 Standard errors for estimated percentages in table 1:7-1

Country/province	300 (Add and subtract)	400 (Simple problems)	500 (Two-step problems)	600 (Complex concepts)	700 (Advanced concepts)
Korea	0.1	0.5	1.1	1.3	0.5
Quebec (French)	0.1	0.4	1.8	1.3	0.3
British Columbia	0.1	0.6	1.2	1.1	0.3
Quebec (English)	0.1	0.4	1.2	1.0	0.2
New Brunswick (English)	0.1	0.6	1.4	1.1	0.3
Ontario (English)	0.2	0.7	1.5	1.3	0.4
New Brunswick (French)	0.2	0.7	1.9	1.2	0.2
Spain	0.2	1.0	2.4	1.8	0.4
United Kingdom	0.3	1.0	1.7	1.2	0.4
Ireland	0.6	0.9	1.7	1.0	0.2
Ontario (French)	0.3	1.1	1.5	0.7	0.1
United States	0.7	2.1	2.2	1.0	0.4

SOURCE: International Assessment of Educational Progress, *A World of Differences, International Assessment of Mathematics and Science*, 1989.

Table 1:7-3 Percentages of 13-year-old students in six countries performing at or above each level of the science proficiency scale: 1988

Country/province	300 (Know everyday facts)	400 (Apply simple principles)	500 (Analyze experiments)	600 (Apply intermediate principles)	700 (Integrate experimental evidence)
British Columbia	100	95	72	31	4
Korea	100	93	73	33	2
United Kingdom	98	89	59	21	2
Quebec (English)	99	92	57	15	1
Ontario (English)	99	91	56	17	2
Quebec (French)	100	91	56	15	1
New Brunswick (English)	99	90	55	15	1
Spain	99	88	53	12	1
United States	96	78	42	12	1
Ireland	96	76	37	9	1
Ontario (French)	98	79	35	6	<1
New Brunswick (French)	98	78	35	7	<1

SOURCE: International Assessment of Educational Progress, *A World of Differences, International Assessment of Mathematics and Science*, 1989.

Table 1:7-4 Standard errors for estimated percentages in table 1:7-3

Country	300 (Know everyday facts)	400 (Apply simple principles)	500 (Analyze experiments)	600 (Apply intermediate principles)	700 (Integrate experimental evidence)
British Columbia	0.1	0.5	1.1	1.0	0.4
Korea	0.2	0.7	1.4	0.4	0.4
United Kingdom	0.3	1.0	1.8	1.4	0.4
Quebec (English)	0.2	0.7	1.7	0.8	0.3
Ontario (English)	0.3	0.9	1.3	1.1	0.3
Quebec (French)	0.1	0.9	1.7	1.3	0.2
New Brunswick (English)	0.2	0.7	1.5	0.9	0.3
Spain	0.2	1.1	2.3	1.3	0.2
United States	0.8	1.9	2.6	1.1	0.4
Ireland	0.9	1.1	1.6	0.9	0.2
Ontario (French)	0.4	0.8	1.1	0.6	0.1
New Brunswick (French)	0.4	1.6	1.7	0.8	0.2

SOURCE: International Assessment of Educational Progress, *A World of Differences, International Assessment of Mathematics and Science*, 1989.

Indicator 1:8

Table 1:8-1 Average geography proficiency of 12th grade students: 1988

Characteristic	Scale score	Standard errors
Characteristic	Scale score	Standard errors
Total	293.1	1.0
Sex		
Male	301.2	1.6
Female	285.7	1.2
Race/ethnicity		
White	301.2	1.1
Black	258.4	2.0
Hispanic	271.8	3.9
Parental Education		
Not graduated high school	267.0	2.4
Graduated high school	283.5	1.8
Education past high school	294.2	1.6
Graduated college	305.3	1.5
Region		
Northeast	295.0	2.8
Southeast	283.3	2.1
Central	298.2	1.4
West	295.3	1.9

SOURCE: The National Assessment of Educational Progress, *The Geography Learning of High School Seniors, 1990*.

Indicator 1:9

Table 1:9-1 Scholastic Aptitude Test (SAT) scores: School years ending 1963–1988

Year*	Total	Verbal	Math
		Average test scores	
1963	980	478	502
1964	973	475	498
1965	969	473	496
1966	967	471	496
1967	958	466	492
1968	958	466	492
1969	956	463	493
1970	948	460	488
1971	943	455	488
1972	937	453	484
1973	926	445	481
1974	924	444	480
1975	906	434	472
1976	903	431	472
1977	899	429	470
1978	897	429	468
1979	894	427	467
1980	890	424	466
1981	890	424	466
1982	893	426	467
1983	893	425	468
1984	897	426	471
1985	906	431	475
1986	906	431	475
1987	906	430	476
1988	904	428	476
1989	903	427	476

* Averages for 1972 through 1988 are based on college-bound seniors. Averages for 1963 through 1971 are estimates provided by the College Board; background information needed for specific identification of college-bound seniors was not collected before 1972.

SOURCE: College Entrance Examination Board, *National Report: College-Bound Seniors*, various years (Copyright by College Entrance Examination Board, all rights reserved).

Table 1:9-2 American College Testing (ACT) scores: School years ending 1970–1988

Year	Composite	English	Mathematics	Social studies	Natural sciences
			Average test scores		
1970	19.9	18.5	20.0	19.7	20.8
1971	19.2	18.0	19.1	18.7	20.5
1972	19.1	17.9	18.8	18.6	20.6
1973	19.2	18.1	19.1	18.3	20.8
1974	18.9	17.9	18.3	18.1	20.8
1975	18.6	17.7	17.6	17.4	21.1
1976	18.3	17.5	17.5	17.0	20.8
1977	18.4	17.7	17.4	17.3	20.9
1978	18.5	17.9	17.5	17.1	20.9
1979	18.6	17.9	17.5	17.2	21.1
1980	18.5	17.9	17.4	17.2	21.1
1981	18.5	17.8	17.3	17.2	21.0
1982	18.4	17.9	17.2	17.3	20.8
1983	18.3	17.8	16.9	17.1	20.9
1984	18.5	18.1	17.3	17.3	21.0
1985	18.6	18.1	17.2	17.4	21.2
1986	18.8	18.5	17.3	17.6	21.4
1987	18.7	18.4	17.2	17.5	21.4
1988	18.8	18.5	17.2	17.4	21.4

SOURCE: The American College Testing Program, *The High School Profile Report, Normative Data*, various years.

Table 1:9-3 Number of examinees for the ACT and the SAT

Year	Number of ACT examinees	Number of SAT examinees	Number of high school graduates	Percent taking ACT	Percent taking SAT
1973	(*)	1,014,862	3,036,000	(*)	33.4
1974	(*)	985,247	3,073,000	(*)	32.1
1975	(*)	996,452	3,133,000	(*)	31.8
1976	(*)	999,829	3,148,000	(*)	31.8
1977	(*)	979,467	3,155,000	(*)	31.0
1978	(*)	989,307	3,127,000	(*)	31.6
1979	(*)	991,765	3,117,000	(*)	31.8
1980	(*)	991,514	3,043,000	(*)	32.6
1981	(*)	994,333	3,020,000	(*)	32.9
1982	(*)	988,680	2,995,000	(*)	33.0
1983	(*)	963,209	2,888,000	(*)	33.4
1984	(*)	964,684	2,767,000	(*)	34.9
1985	738,836	977,361	2,677,000	27.6	36.5
1986	729,606	1,000,748	2,642,000	27.6	37.9
1987	777,444	1,080,426	2,698,000	28.8	40.0
1988	842,322	1,134,364	2,793,000	30.2	40.6
1989	855,177	1,088,223	2,781,000	30.8	39.1

* Background information needed for specific identification of college-bound seniors was not collected before 1972 for the SAT and 1985 for the ACT.

SOURCE: College Entrance Examination Board, *National Report: College Bound Seniors*, various years (copyright by College Entrance Examination Board, all rights reserved); The American College Testing Program, *The High School Profile Report, Normative Data*, various years.

Indicator 1:10

Table 1:10-1 Labor force participation rate of 25- to 34-year-olds, by sex and years of schooling completed: 1971–1988

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
				Percent		
1971	91.2	95.9	97.9	32.9	40.6	46.2
1972	90.8	95.5	97.7	37.0	40.8	47.3
1973	91.9	95.4	96.5	37.0	41.8	48.4
1974	89.8	96.2	96.8	37.0	44.5	50.2
1975	89.8	93.7	96.1	36.7	42.6	53.3
1976	85.4	91.7	96.8	38.4	46.0	54.6
1977	87.5	94.6	96.4	36.7	48.7	57.8
1978	87.9	92.1	96.6	41.0	49.2	60.2
1979	86.3	91.5	96.5	40.0	49.9	61.9
1980	83.5	90.4	96.3	41.6	52.8	64.3
1981	85.2	91.6	96.1	38.7	51.3	66.9
1982	83.1	91.1	95.9	41.4	48.3	66.6
1983	81.2	92.2	94.9	39.3	49.1	66.3
1984	78.6	89.6	94.9	37.5	51.3	67.8
1985	81.9	89.8	95.1	42.6	49.6	69.9
1986	82.5	88.9	95.0	40.5	54.8	69.8
1987	85.1	89.3	94.6	39.6	53.7	71.2
1988	80.9	88.4	94.4	38.3	55.4	71.1

NOTE: The labor force participation rate is the percent of the population either employed or unemployed, that is, without a job and looking for work. Those not in the labor force are neither employed nor looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Table 1:10-2 Unemployment rates of 25- to 34-year- olds, by sex and years of schooling completed: 1971–1988

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
				Percent		
1971	9.8	8.3	4.4	11.1	13.2	6.6
1972	6.4	7.3	4.1	9.5	11.4	5.1
1973	8.7	6.9	3.5	11.4	8.2	5.7
1974	7.7	6.3	4.0	10.1	10.5	5.3
1975	18.4	16.7	9.5	17.1	19.0	10.1
1976	12.3	13.2	7.5	12.2	14.0	8.8
1977	15.2	13.9	7.1	13.2	15.7	8.3
1978	12.4	10.5	6.0	13.1	13.8	7.2
1979	9.0	12.1	5.4	16.0	13.5	6.2
1980	14.3	14.1	9.7	15.7	13.6	7.5
1981	11.9	16.3	9.5	16.0	16.6	8.5
1982	18.2	19.6	13.1	20.8	17.8	10.6
1983	20.9	24.8	17.2	20.3	24.4	11.3
1984	14.7	19.5	10.6	15.4	19.1	10.1
1985	10.8	15.3	9.5	17.7	18.8	8.6
1986	15.9	17.6	9.3	13.2	19.4	8.6
1987	13.8	16.0	8.2	13.4	18.0	7.9
1988	11.7	14.6	7.6	10.1	15.1	6.1

NOTE: The unemployment rate is the percent of the labor force unemployed. The unemployed are those without a job and looking for work. The labor force is the sum of those with jobs and those unemployed; it excludes those without jobs and not looking for work.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Table 1:10-3 Standard errors for estimated percentages in text table in indicator 1:10

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
				Percent		
1971	1.7	1.1	0.5	3.5	2.3	1.3
1972	1.6	1.1	0.5	3.5	2.3	1.3
1973	1.6	1.1	0.5	3.4	2.3	1.2
1974	1.7	1.1	0.5	3.6	2.2	1.2
1975	2.1	1.5	0.6	3.4	2.2	1.2
1976	2.3	1.5	0.6	3.6	2.3	1.1
1977	2.3	1.4	0.6	3.7	2.2	1.1
1978	2.2	1.4	0.6	3.5	2.2	1.1
1979	2.1	1.5	0.5	3.6	2.2	1.0
1980	2.5	1.7	0.7	3.8	2.4	1.0
1981	2.4	1.6	0.6	3.9	2.4	1.0
1982	2.7	1.7	0.7	3.8	2.4	1.0
1983	2.7	1.8	0.8	3.9	2.4	1.0
1984	2.6	1.7	0.6	4.0	2.4	1.0
1985	2.5	1.6	0.6	3.9	2.4	0.9
1986	2.5	1.6	0.6	4.0	2.3	0.9
1987	2.4	1.5	0.6	4.0	2.3	0.9
1988	2.5	1.5	0.6	4.0	2.4	0.9

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Table 1:10-4 Standard errors for estimated percentages in table 1:10-1

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
				Percent		
1971	1.2	0.7	0.3	2.1	1.5	0.9
1972	1.2	0.7	0.3	2.2	1.5	0.9
1973	1.1	0.7	0.4	2.1	1.5	0.9
1974	1.3	0.7	0.3	2.2	1.5	0.9
1975	1.4	0.9	0.4	2.2	1.5	0.8
1976	1.7	1.0	0.3	2.3	1.6	0.8
1977	1.7	0.8	0.4	2.3	1.5	0.8
1978	1.6	1.0	0.3	2.3	1.6	0.8
1979	1.6	1.0	0.3	2.4	1.6	0.8
1980	1.9	1.1	0.4	2.5	1.7	0.8
1981	1.8	1.0	0.4	2.5	1.7	0.8
1982	2.0	1.1	0.4	2.5	1.7	0.8
1983	2.0	1.0	0.4	2.6	1.7	0.8
1984	2.0	1.1	0.4	2.6	1.7	0.8
1985	2.0	1.1	0.4	2.7	1.8	0.7
1986	1.9	1.1	0.4	2.6	1.7	0.7
1987	1.8	1.0	0.4	2.6	1.7	0.7
1988	2.0	1.0	0.4	2.5	1.8	0.7

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Table 1:10-5 Standard errors for estimated percentages in table 1:10-2

Year	Male			Female		
	Less than 9 years of school	9 to 11 years of school	12 years of school	Less than 9 years of school	9 to 11 years of school	12 years of school
			Percent			
1971	1.3	1.0	0.4	2.4	1.6	0.7
1972	1.1	0.9	0.4	2.2	1.5	0.6
1973	1.2	0.9	0.4	2.3	1.3	0.6
1974	1.2	0.9	0.4	2.3	1.4	0.5
1975	1.8	1.4	0.6	2.8	1.8	0.7
1976	1.7	1.3	0.5	2.5	1.6	0.6
1977	1.9	1.3	0.5	2.7	1.6	0.6
1978	1.7	1.2	0.5	2.5	1.6	0.6
1979	1.5	1.3	0.4	2.8	1.5	0.5
1980	1.9	1.4	0.6	2.9	1.6	0.6
1981	1.8	1.4	0.6	3.1	1.8	0.6
1982	2.2	1.6	0.6	3.3	1.9	0.6
1983	2.3	1.7	0.7	3.4	2.1	0.6
1984	2.0	1.5	0.6	3.1	1.9	0.6
1985	1.7	1.4	0.5	3.2	1.9	0.5
1986	2.0	1.4	0.5	2.8	1.9	0.5
1987	1.9	1.3	0.5	2.9	1.8	0.5
1988	1.8	1.2	0.5	2.5	1.7	0.4

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Educational Attainment of Workers*, various years and unpublished tabulations.

Supplemental note 1:10 Labor force statistics

The Bureau of Labor Statistics classifies the labor force status of an individual into three categories: (1) employed, (2) unemployed, and (3) not in the labor force. An *employed* individual is someone with a job and working. Also included are those not working but with jobs from which they are temporarily absent because of illness, vacation, labor-management disputes, bad weather, and personal reasons. Those in the military are also counted as employed. An *unemployed* individual is someone without a job, available for work, and who has made specific efforts to find employment some time during the prior 4 weeks. Also included are persons waiting to be recalled to a job from which they had been laid off or are waiting to report to a new job within 30 days. Individuals who are neither employed nor unemployed are *not in the labor force.*

The *labor force* comprises all persons classified as employed or unemployed. The *unemployment rate* represents the number unemployed as a percent of the labor force. The *labor force participation rate* is the ratio of the labor force to the population. The *employment-population* is the percentage of employed individuals in the population. We refer to the last statistic as the *employment rate* in indicator 1:10.

Each of these statistics is typically reported in two forms, one that includes the military and one that excludes them. For instance, the *civilian employment-population ratio* is the percentage of all employed civilians in the civilian non-institutional population. The *civilian labor force participation rate* is the ratio of the civilian labor force to the civilian non-institutional population. The labor force statistics reported in *Indicator 1:10* and its associated supplemental tables are all for the civilian non-institutional population.

Each of these measures can be computed for groups classified by age, sex, race, Hispanic origin, etc.

Further elaboration on these labor force statistics is available in the explanatory notes of *Employment and Earnings*, published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor.

Indicator 1:11

Table 1:11-1 Ratio of mean annual earnings of all workers with 8 or fewer and 9 to 11 years of schooling to those with just 12 years of schooling, by sex and age: 1975–1987

	All workers with earnings							
	Males				Females			
	8 or fewer		9 to 11		8 or fewer		9 to 11	
Year	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old
1975	0.586	0.671	0.809	0.802	0.557	0.598	0.741	0.852
1976	0.616	0.718	0.793	0.823	0.645	0.629	0.710	0.895
1977	0.675	0.672	0.807	0.780	0.648	0.588	0.713	0.854
1978	0.687	0.648	0.819	0.803	0.647	0.625	0.732	0.866
1979	0.637	0.627	0.858	0.792	0.627	0.635	0.801	0.835
1980	0.650	0.579	0.799	0.727	0.655	0.579	0.770	0.823
1981	0.669	0.611	0.834	0.726	0.642	0.550	0.626	0.829
1982	0.641	0.615	0.739	0.788	0.641	0.612	0.742	0.862
1983	0.601	0.611	0.746	0.762	0.617	0.556	0.687	0.816
1984	0.618	0.550	0.714	0.699	0.637	0.555	0.718	0.819
1985	0.571	0.613	0.719	0.816	0.537	0.587	0.773	0.817
1986	0.578	0.552	0.756	0.743	0.617	0.554	0.718	0.801
1987	0.603	0.596	0.727	0.764	0.583	0.574	0.738	0.807

	Year-round, full-time workers						
	Males				Females		
	8 or fewer		9 to 11		8 or fewer	9 to 11	
Year	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-34* years old	25-29 years old	30-34 years old
1975	0.655	0.710	0.826	0.859	0.652	0.798	0.787
1976	0.692	0.789	0.846	0.853	0.707	0.824	0.803
1977	0.687	0.685	0.842	0.827	0.728	0.817	0.781
1978	0.741	0.722	0.864	0.840	0.689	0.919	0.892
1979	0.688	0.689	0.877	0.829	0.727	0.795	0.863
1980	0.670	0.658	0.809	0.804	0.712	0.761	0.852
1981	0.700	0.673	0.859	0.789	0.711	0.816	0.701
1982	0.684	0.691	0.829	0.854	0.719	0.770	0.778
1983	0.667	0.658	0.810	0.837	0.669	0.800	0.736
1984	0.646	0.600	0.804	0.768	0.676	0.800	0.821
1985	0.652	0.650	0.779	0.861	0.625	0.795	0.935
1986	0.621	0.637	0.803	0.840	0.734	0.837	0.787
1987	0.666	0.596	0.817	0.835	0.635	0.853	0.771

* Due to insufficient sample sizes, it is not possible to split 25– to 34-year-olds female year-round, full-time workers with less than 9 years of schooling into 25 to 29 and 30 to 34 year old age groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Series P-60, *Current Population Reports*, "Money Income of Families and Persons: March . . .," various years.

Table 1:11-2 Mean annual earnings of workers with 12 years of schooling, by employment status, sex, and age: 1975–1987

Year	All workers				Year-round, full-time workers			
	Male		Female		Male		Female	
	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old
	(Constant 1989 dollars)							
1975	$23,380	$27,229	$11,791	$11,484	$27,000	$30,339	$17,524	$18,434
1976	23,715	27,437	12,020	11,944	27,137	30,189	18,073	18,484
1977	23,309	28,676	12,199	12,444	26,808	31,363	18,342	18,413
1978	24,012	28,347	12,036	12,305	27,366	31,051	18,056	18,336
1979	23,460	27,888	12,151	12,186	26,851	30,401	17,672	18,094
1980	21,592	25,932	11,906	11,806	25,208	28,714	17,303	17,599
1981	20,481	23,872	11,344	11,990	23,992	27,184	16,532	17,314
1982	,237	22,504	11,739	11,966	23,128	26,573	16,644	17,794
1983	198	22,608	11,666	12,192	23,080	26,381	16,616	17,655
1984	3	23,419	12,063	12,478	24,182	26,848	17,135	17,943
1985	96	22,678	11,963	13,247	23,752	25,802	16,862	18,737
1986	19,854	23,746	12,205	12,647	23,059	26,914	16,790	18,267
1987	20,335	23,914	12,546	13,124	23,661	27,021	17,063	18,260

SOURCE: U.S. Department of Commerce, Bureau of the Census, Series P-60, *Current Population Reports*, "Money Income of Families and Persons: March . . .," various years.

Table 1:11-3 Standard errors for estimated percentages in table 1:11-1

Year	All workers with earnings							
	Males				Females			
	8 or fewer		9 to 11		8 or fewer		9 to 11	
	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old
1975	0.03	0.03	0.03	0.02	0.04	0.04	0.04	0.04
1976	0.03	0.04	0.02	0.02	0.06	0.05	0.04	0.04
1977	0.03	0.03	0.02	0.02	0.05	0.04	0.04	0.04
1978	0.04	0.03	0.03	0.03	0.05	0.05	0.05	0.05
1979	0.03	0.03	0.03	0.03	0.05	0.05	0.04	0.04
1980	0.03	0.03	0.03	0.03	0.05	0.04	0.06	0.04
1981	0.03	0.03	0.03	0.03	0.05	0.04	0.04	0.04
1982	0.03	0.03	0.03	0.03	0.06	0.04	0.04	0.05
1983	0.03	0.03	0.03	0.04	0.05	0.05	0.04	0.04
1984	0.03	0.03	0.02	0.03	0.08	0.04	0.04	0.05
1985	0.03	0.03	0.03	0.03	0.05	0.06	0.04	0.08
1986	0.03	0.03	0.03	0.03	0.06	0.05	0.04	0.04
1987	0.03	0.04	0.02	0.03	0.05	0.05	0.05	0.04

Year	Year-round, full-time workers						
	Males				Females		
	8 or fewer		9 to 11		8 or fewer	9 to 11	
	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-34 years old	25-29 years old	30-34 years old
1975	0.04	0.04	0.04	0.04	0.03	0.04	0.04
1976	0.06	0.05	0.04	0.04	0.04	0.03	0.04
1977	0.05	0.04	0.04	0.04	0.04	0.04	0.03
1978	0.05	0.05	0.05	0.05	0.03	0.06	0.04
1979	0.05	0.05	0.04	0.04	0.04	0.04	0.04
1980	0.05	0.04	0.06	0.04	0.03	0.04	0.04
1981	0.05	0.04	0.04	0.04	0.03	0.05	0.04
1982	0.06	0.04	0.04	0.05	0.04	0.04	0.04
1983	0.05	0.05	0.04	0.04	0.04	0.04	0.03
1984	0.08	0.04	0.04	0.05	0.05	0.04	0.05
1985	0.05	0.06	0.04	0.08	0.05	0.04	0.13
1986	0.06	0.05	0.04	0.04	0.05	0.04	0.04
1987	0.05	0.05	0.05	0.04	0.04	0.07	0.04

SOURCE: U.S. Department of Commerce, Bureau of the Census, Series P-60, *Current Population Reports*, "Money Income of Families and Persons: March . . .," various years.

Table 1:11-4 Standard errors for estimated mean annual earnings in table 1:11-2

Year	All workers				Year-round, full-time workers			
	Male		Female		Male		Female	
	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old	25-29 years old	30-34 years old
1975	269	336	206	250	312	388	229	319
1976	299	333	210	259	360	349	241	337
1977	294	365	216	243	340	388	260	300
1978	302	427	242	263	333	480	271	322
1979	310	376	214	242	366	398	240	305
1980	273	364	204	227	310	397	248	285
1981	270	322	196	225	316	358	235	263
1982	253	345	207	252	317	407	265	344
1983	246	319	199	253	297	357	236	318
1984	275	329	203	228	332	355	247	273
1985	293	324	224	262	354	341	291	320
1986	255	396	215	244	289	425	255	314
1987	286	351	216	247	335	393	265	311

SOURCE: U.S. Department of Commerce, Bureau of the Census, Series P-60, *Current Population Reports*, "Money Income of Families and Persons: March . . .," various years.

Indicator 1:12

Table 1:12-1 Elementary and secondary students served in federally supported education programs for the handicapped, by type of handicap: School years ending 1977–1988

Type of handicap	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
					[1] Number served (in thousands)							
All conditions	3,692	3,751	3,889	4,005	4,142	4,198	4,255	4,298	4,315	4,317	4,374	4,446
Learning disabled	796	964	1,130	1,276	1,462	1,622	1,741	1,806	1,832	1,862	1,914	1,928
Speech impaired	1,302	1,223	1,214	1,186	1,168	1,135	1,131	1,128	1,126	1,125	1,136	953
Mentally retarded	959	933	901	869	829	786	757	727	694	660	643	582
Seriously emotionally disturbed	283	288	300	329	346	339	352	361	372	375	383	373
Hard of hearing and deaf	87	85	85	80	79	75	73	72	69	66	65	56
Orthopedically handicapped	87	87	70	66	58	58	57	56	56	57	57	47
Other health impaired	141	135	105	106	98	79	50	53	68	57	52	45
Visually impaired	38	35	32	31	31	29	28	29	28	27	26	22
Multihandicapped	—	—	50	60	68	71	63	65	69	86	97	77
Deaf-blind	—	—	2	2	3	2	2	2	2	2	2	1
Preschool [2]	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	363
					Percentage distribution of children served							
All conditions	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Learning disabled	21.6	25.7	29.1	31.9	35.3	38.6	40.9	42.0	42.4	43.1	43.8	43.4
Speech impaired	35.3	32.6	31.2	29.6	28.2	27.0	26.6	26.2	26.1	26.1	26.0	21.4
Mentally retarded	26.0	24.9	23.2	21.7	20.0	18.7	17.8	16.9	16.1	15.3	14.7	13.1
Seriously emotionally disturbed	7.7	7.7	7.7	8.2	8.4	8.1	8.3	8.4	8.6	8.7	8.8	8.4
Hard of hearing and deaf	2.4	2.3	2.2	2.0	1.9	1.8	1.7	1.7	1.6	1.5	1.5	1.3
Orthopedically handicapped	2.4	2.3	1.8	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.1
Other health impaired	3.8	3.6	2.7	2.6	2.4	1.9	1.2	1.2	1.6	1.3	1.2	1.0
Visually impaired	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.5
Multihandicapped	—	—	1.3	1.5	1.6	1.7	1.5	1.5	1.6	2.0	2.2	1.7
Deaf-blind	—	—	0.1	([4])	0.1	([4])	([4])	0.1	([4])	([4])	([4])	([4])
Preschool [2]	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	8.2

Table 1:12-1 Elementary and secondary students served in federally supported education programs for the handicapped, by type of handicap: School years ending 1977–1988—Continued

Type of handicap	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
	[5] Number served as percent of total enrollment											
All conditions	8.33	8.61	9.14	9.62	10.11	10.46	10.73	10.92	10.98	10.93	10.97	11.10
Learning disabled	1.80	2.21	2.66	3.06	3.57	4.04	4.39	4.59	4.66	4.71	4.80	4.82
Speech impaired	2.94	2.81	2.85	2.85	2.85	2.83	2.85	2.87	2.87	2.85	2.85	2.38
Mentally retarded	2.16	2.14	2.12	2.09	2.02	1.96	1.91	1.85	1.77	1.67	1.61	1.45
Seriously emotionally disturbed	0.64	0.66	0.71	0.79	0.85	0.85	0.89	0.92	0.95	0.95	0.96	0.93
Hard of hearing and deaf	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.17	0.17	0.16	0.14
Orthopedically handicapped	0.20	0.20	0.16	0.16	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.12
Other health impaired	0.32	0.31	0.25	0.25	0.24	0.20	0.13	0.13	0.17	0.14	0.13	0.11
Visually impaired	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.06
Multihandicapped	—	—	0.12	0.14	0.17	0.18	0.16	0.17	0.17	0.22	0.24	0.19
Deaf-blind	—	—	0.01	0.01	0.01	([6])	0.01	0.01	([6])	0.01	([6])	([6])
Preschool [2]	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	([3])	0.91

[1] Includes students served under Chapter I and Education of the Handicapped Act (EHA).

[2] Includes preschool children 3-5 years old served under the EHA and 0-5 years old served under Chapter I.

[3] Beginning in 1987-88, States were no longer required to report preschool handicapped students (0-5 years) by handicapping condition. Prior to this, these students were included in the overall counts by handicapping condition.

[4] Less than 0.05.

[5] Based on enrollment in public schools, kindergarten through 12th grade, including a relatively small number of prekindergarten students.

[6] Less than 0.005.

NOTE: Counts are based on reports from the 50 States and the District of Columbia only (i.e., figures from U.S. territories are not included). Some of the increases in 1987-88 may be due in part to new legislation passed in Fall 1986 which mandates public school special education services for all handicapped children ages 3 through 5 by the 1990-91 school year and provides a State grant program for handicapped children from birth to age 2. Some data have been revised from previously published figures. Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, Annual Report to Congress on the Implementation of the Education of the Handicapped Act, various years; National Center for Education Statistics, Common Core of Data survey; and unpublished data.

Table 1:13-1 Standard errors for change in average number of credits taken, 1982 to 1987, in various subject areas: All students.

Subject	Change from 82 to 87	Standard error
English	* 0.23	0.0315
History	* 0.22	0.0282
Social Studies	0.01	0.0525
Mathematics	* 0.43	0.0381
Computer Science	* 0.32	0.0191
Science	* 0.40	0.0505
Foreign Languages	* 0.42	0.0575
Non-Occ. Voc. Ed.	* -0.20	0.0596
Voc Gen. Intro.	-0.03	0.0220

* Differences between 1982 and 1987 graduates that are significant at $p < .05$ are indicated by an asterisk.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1987 High School Transcript study, unpublished tabulations.

Table 1:14-1 Enrollment of white 3- to 4-year-olds: 1971–1987

Year	Population	Enrolled in kindergarten	Enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
			(In thousands)			
1971	5,794	377	831	6.5	14.3	—
1972	5,758	344	1,016	6.0	17.6	16.5
1973	5,880	341	1,022	5.8	17.4	19.0
1974	5,804	386	1,273	6.7	21.9	21.2
1975	5,518	359	1,339	6.5	24.3	23.0
1976	5,124	390	1,169	7.6	22.8	24.0
1977	4,952	312	1,230	6.3	24.8	25.1
1978	4,965	249	1,373	5.0	27.7	27.1
1979	4,991	255	1,440	5.1	28.9	29.1
1980	5,074	282	1,562	5.6	30.8	29.9
1981	5,291	293	1,589	5.5	30.0	30.7
1982	5,441	256	1,696	4.7	31.2	30.8
1983	5,668	365	1,768	6.4	31.2	31.0
1984	5,782	303	1,776	5.2	30.7	31.7
1985	5,836	310	1,940	5.3	33.2	32.7
1986	5,867	288	2,008	4.9	34.2	33.5
1987	5,837	300	1,922	5.1	32.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-2 Enrollment of black 3- to 4-year-olds: 1971–1987

Year	Population	Enrolled in kindergarten	Enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
			(In thousands)			
1971	1,076	96	120	8.9	11.2	—
1972	956	92	178	9.6	18.6	16.2
1973	1,013	100	192	9.9	19.0	19.1
1974	1,030	96	204	9.3	19.8	21.2
1975	1,006	94	251	9.3	25.0	22.3
1976	968	120	214	12.4	22.1	23.9
1977	932	100	229	10.7	24.6	26.0
1978	933	93	293	10.0	31.4	27.8
1979	944	125	260	13.2	27.5	29.1
1980	972	95	276	9.8	28.4	28.0
1981	973	85	272	8.7	28.0	28.4
1982	1,216	120	352	9.9	28.9	28.6
1983	1,071	77	309	7.2	28.9	28.8
1984	1,131	108	324	9.5	28.6	28.4
1985	1,100	163	306	14.8	27.8	28.3
1986	1,066	107	303	10.0	28.4	27.1
1987	1,066	125	268	11.7	25.1	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-3 Enrollment of Hispanic 3- to 4-year-olds: 1984–1987

Year	Population	Enrolled in kindergarten	Enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
		(In thousands)				
1984	621	45	105	7.2	16.9	—
1985	790	55	158	7.0	20.0	19.0
1986	808	69	162	8.5	20.0	20.3
1987	889	83	185	9.3	20.8	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-4 Enrollment of white 5-year-olds: 1971–1987

Year	Population	Enrolled in pre-K	Enrolled in 1st or 2nd grade	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in 1st or 2nd grade	Percent enrolled in kindergarten	Three-year avg. percent enrollment in * kindergarten
		(In thousands)						
1971	3,006	53	290	2,206	1.8	9.6	73.4	—
1972	2,847	57	267	2,125	2.0	9.4	74.6	74.1
1973	2,818	59	299	2,097	2.1	10.6	74.4	75.5
1974	2,862	64	293	2,218	2.2	10.2	77.5	77.1
1975	2,923	91	236	2,319	3.1	8.1	79.3	78.9
1976	2,884	72	288	2,302	2.5	10.0	79.8	79.9
1977	2,606	79	241	2,099	3.0	9.2	80.5	80.0
1978	2,498	82	219	1,993	3.3	8.8	79.8	80.4
1979	2,471	114	195	2,002	4.6	7.9	81.0	81.3
1980	2,507	70	171	2,080	2.8	6.8	83.0	81.2
1981	2,589	95	154	2,061	3.7	5.9	79.6	81.1
1982	2,635	87	185	2,126	3.3	7.0	80.7	80.1
1983	2,668	161	173	2,137	6.0	6.5	80.1	80.3
1984	2,758	124	170	2,206	4.5	6.2	80.0	80.3
1985	2,864	136	182	2,317	4.7	6.4	80.9	81.4
1986	2,918	128	114	2,428	4.4	3.9	83.2	80.4
1987	2,942	—	139	2,272	—	4.7	77.2	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-5 Enrollment of black 5-year-olds: 1971–1987

Year	Population	Enrolled in pre-K	Enrolled in 1st or 2nd grade	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in 1st or 2nd grade	Percent enrolled in kindergarten	Three-year avg. percent enrollment in * kindergarten
		(In thousands)						
1971	553	15	90	346	2.7	16.3	62.6	—
1972	487	7	46	343	1.4	9.4	70.4	67.1
1973	454	16	41	310	3.5	9.0	68.3	69.1
1974	517	24	71	355	4.6	13.7	68.7	69.1
1975	514	25	75	362	4.9	14.6	70.4	71.4
1976	533	11	70	401	2.1	13.1	75.2	74.0
1977	495	21	61	378	4.2	12.3	76.4	74.6
1978	477	20	62	344	4.2	13.0	72.1	74.6
1979	461	18	65	347	3.9	14.1	75.3	74.6
1980	472	18	58	360	3.8	12.3	76.3	75.5
1981	477	11	66	357	2.3	13.8	74.8	76.2
1982	581	17	63	451	2.9	10.8	77.6	75.3
1983	484	17	68	355	3.5	14.0	73.3	76.1
1984	515	15	49	398	2.9	9.5	77.3	76.3
1985	544	23	58	426	4.2	10.7	78.3	79.1
1986	576	11	46	470	1.9	8.0	81.6	82.1
1987	572	—	40	495	—	7.0	86.5	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-6 Enrollment of Hispanic 5-year-olds: 1984–1987

Year	Population	Enrolled in pre-K	Enrolled in 1st or 2nd grade	Enrolled in kindergarten	Percent enrolled in pre-K	Percent enrolled in 1st or 2nd grade	Percent enrolled in kindergarten	Three-year avg. percent enrollment in * kindergarten
		(In thousands)						
1984	293	7	35	223	2.4	11.9	76.1	—
1985	544	9	36	426	1.7	6.6	78.3	78.0
1986	433	18	27	344	4.2	6.2	79.4	76.7
1987	402	—	34	291	—	8.5	72.4	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

NOTE: Hispanics may be of any race.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-7 Standard errors of estimated numbers and percentages in Table 1:14-1

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
		(In thousands)			
1971	27	38	0.5	0.7	—
1972	25	41	0.4	0.7	0.4
1973	25	41	0.4	0.7	0.4
1974	27	45	0.5	0.8	0.4
1975	26	45	0.5	0.8	0.5
1976	27	42	0.5	0.8	0.5
1977	24	43	0.5	0.9	0.5
1978	22	45	0.4	0.9	0.5
1979	22	45	0.4	0.9	0.5
1980	23	46	0.5	0.9	0.5
1981	25	51	0.4	0.9	0.5
1982	24	52	0.4	0.9	0.5
1983	28	53	0.5	0.9	0.5
1984	26	53	0.4	0.9	0.5
1985	26	55	0.4	0.9	0.5
1986	25	55	0.4	0.9	0.5
1987	26	55	0.4	0.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . ." various years.

Table 1:14-8 Standard errors of estimated numbers and percentages in table 1:14-2

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
	(In thousands)				
1971	13	15	1.2	1.4	—
1972	13	17	1.3	1.8	0.9
1973	13	18	1.3	1.7	1.0
1974	13	18	1.3	1.8	1.0
1975	13	19	1.3	1.9	1.1
1976	14	18	1.5	1.9	1.1
1977	13	19	1.4	2.0	1.2
1978	13	20	1.4	2.1	1.2
1979	15	19	1.6	2.1	1.2
1980	13	20	1.3	2.0	1.2
1981	12	20	1.3	2.0	1.1
1982	15	22	1.2	1.8	1.1
1983	12	21	1.1	2.0	1.1
1984	14	22	1.2	1.9	1.1
1985	17	21	1.5	1.9	1.1
1986	14	21	1.3	2.0	1.1
1987	15	20	1.4	1.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-9 Standard errors of estimated numbers and percentages in table 1:14-3

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
		(In thousands)			
1984	9	13	1.5	2.1	—
1985	10	16	1.3	2.0	1.2
1986	11	16	1.4	2.0	1.1
1987	12	17	1.4	1.9	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-10 Standard errors of estimated numbers and percentages in table 1:14-4

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
	(In thousands)				
1971	10	23	0.3	0.8	—
1972	11	22	0.4	0.8	0.4
1973	11	23	0.4	0.8	0.5
1974	11	23	0.4	0.8	0.5
1975	13	21	0.5	0.7	0.4
1976	12	23	0.4	0.8	0.5
1977	12	21	0.5	0.8	0.5
1978	13	20	0.5	0.8	0.5
1979	15	19	0.6	0.8	0.4
1980	12	18	0.5	0.7	0.4
1981	14	17	0.5	0.7	0.4
1982	13	19	0.5	0.7	0.4
1983	17	18	0.7	0.7	0.4
1984	15	18	0.6	0.6	0.4
1985	16	18	0.6	0.6	0.4
1986	16	15	0.5	0.5	0.3
1987	—	16	—	0.6	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-11 Standard errors of estimated numbers and percentages in table 1:14-5

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
	(In thousands)				
1971	5	12	1.0	2.2	—
1972	4	9	0.8	1.9	1.1
1973	6	9	1.2	1.9	1.1
1974	7	11	1.3	2.1	1.3
1975	7	11	1.3	2.2	1.3
1976	5	11	0.9	2.1	1.2
1977	6	10	1.3	2.1	1.2
1978	6	10	1.3	2.2	1.3
1979	6	11	1.3	2.3	1.3
1980	6	10	1.2	2.1	1.2
1981	5	11	1.0	2.2	1.2
1982	6	11	1.0	1.8	1.1
1983	6	11	1.2	2.2	1.2
1984	5	9	1.0	1.8	1.1
1985	7	10	1.2	1.9	1.1
1986	5	9	0.8	1.6	0.9
1987	—	9	—	1.5	1.1

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census. *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:14-12 Standard errors of estimated numbers and percentages in table 1:14-6

Year	Number enrolled in kindergarten	Number enrolled in pre-K	Percent enrolled in kindergarten	Percent enrolled in pre-K	Three-year average percent enrollment in * pre-K
	(In thousands)				
1984	4	8	1.3	2.7	—
1985	4	8	0.8	1.5	1.0
1986	6	7	1.4	1.6	0.9
1987	—	8	—	2.0	—

— Not available.

* The year represents the middle of 3 years over which rates are averaged.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, "School Enrollment . . .," various years.

Table 1:15-1 Preprimary enrollment by level, control, and attendance status

Year and age	Total population, 3 to 5 years old	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
			Pre-K		Kindergarten			
			Public	Private	Public	Private	Full-day	Part-day
			(In thousands)					
1969								
Total, 3-5 years old	11,424	3,949	242	615	2,523	569	587	3,363
3 years old	3,614	315	68	225	9	14	113	203
4 years old	3,809	880	135	350	285	109	181	699
5 years old	4,001	2,755	39	40	2,229	446	293	2,461
1970								
Total, 3-5 years old	10,949	4,104	332	762	2,498	511	698	3,406
3 years old	3,516	454	110	322	12	10	142	312
4 years old	3,620	1,007	176	395	318	117	230	776
5 years old	3,814	2,643	45	45	2,168	384	326	2,317
1971								
Total, 3-5 years old	10,611	4,149	315	748	2,532	555	719	3,428
3 years old	3,466	430	84	297	23	26	155	275
4 years old	3,520	1,048	197	415	289	148	212	835
5 years old	3,625	2,671	34	36	2,220	381	352	2,318
1972								
Total, 3-5 years old	10,166	4,231	395	882	2,476	478	923	3,309
3 years old	3,441	535	134	373	17	12	195	340
4 years old	3,341	1,121	228	478	304	110	296	825
5 years old	3,384	2,575	33	31	2,155	356	432	2,144
1973								
Total, 3-5 years old	—	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—	—
1974								
Total, 3-5 years old	10,392	4,699	422	1,182	2,580	517	1,121	3,578
3 years old	3,450	685	159	492	20	15	238	447
4 years old	3,516	1,322	229	636	314	143	362	959
5 years old	3,426	2,693	34	54	2,246	359	521	2,172

Table 1:15-1 Preprimary enrollment by level, control, and attendance status—Continued

Year and age	Total population, 3 to 5 years old	Total enrolled	Enrollment by level and control: Pre-K Public	Pre-K Private	Kindergarten Public	Kindergarten Private	Enrollment by attendance status: Full-day	Part-day
			(In thousands)					
1975								
Total, 3-5 years old	10,185	4,955	570	1,174	2,682	528	1,295	3,659
3 years old	3,177	683	179	474	11	18	259	423
4 years old	3,499	1,418	332	644	313	129	411	1,008
5 years old	3,509	2,854	59	57	2,358	381	625	2,228
1976								
Total, 3-5 years old	—	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—	—
1977								
Total, 3-5 years old	9,249	4,577	557	1,054	2,474	492	1,348	3,229
3 years old	2,978	645	184	431	14	16	211	434
4 years old	3,061	1,290	321	570	270	128	429	861
5 years old	3,210	2,642	52	53	2,189	347	708	1,934
1978								
Total, 3-5 years old	—	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—	—
1979								
Total, 3-5 years old	9,119	4,664	633	1,228	2,381	421	1,454	3,210
3 years old	3,025	746	216	509	16	5	305	441
4 years old	3,070	1,393	359	664	247	123	421	972
5 years old	3,024	2,525	58	56	2,119	293	728	1,797
1980								
Total, 3-5 years old	9,284	4,878	628	1,353	2,438	459	1,551	3,327
3 years old	3,143	857	221	604	16	17	321	536
4 years old	3,072	1,423	363	701	239	120	467	956
5 years old	3,069	2,598	44	48	2,183	322	763	1,835

Table 1:15-1 Preprimary enrollment by level, control, and attendance status—Continued

Year and age	Total population, 3 to 5 years old	Total enrolled	Enrollment by level and control: Pre-K Public	Pre-K Private	Kindergarten Public	Kindergarten Private	Enrollment by attendance status: Full-day	Part-day
			(In thousands)					
1981								
Total, 3-5 years old	9,421	4,937	—	—	—	—	1,472	3,465
3 years old	3,266	891	—	—	—	—	297	612
4 years old	2,985	1,442	—	—	—	—	431	1,011
5 years old	3,170	2,604	—	—	—	—	762	1,842
1982								
Total, 3-5 years old	9,873	5,105	729	1,423	2,459	494	1,574	3,531
3 years old	3,387	928	312	578	27	10	280	648
4 years old	3,271	1,496	377	781	225	113	442	1,054
5 years old	3,215	2,681	40	64	2,207	370	852	1,829
1983								
Total, 3-5 years old	10,254	5,384	809	1,538	2,416	623	—	—
3 years old	3,574	1,004	314	631	21	39	—	—
4 years old	3,414	1,619	402	813	231	173	—	—
5 years old	3,266	2,761	93	94	2,164	410	—	—
1984								
Total, 3-5 years old	10,612	5,480	742	1,593	2,668	476	1,929	3,550
3 years old	3,609	1,004	295	658	30	22	401	603
4 years old	3,579	1,603	376	860	257	110	521	1,082
5 years old	3,423	2,872	72	76	2,381	344	1,007	1,865
1985								
Total, 3-5 years old	10,733	5,865	846	1,631	2,847	541	2,144	3,722
3 years old	3,594	1,035	278	679	52	26	350	685
4 years old	3,598	1,766	496	859	276	135	643	1,123
5 years old	3,542	3,065	73	94	2,519	379	1,151	1,914
1986								
Total, 3-5 years old	10,866	5,971	829	1,715	2,859	567	2,241	3,730
3 years old	3,607	1,041	257	737	26	21	399	642
4 years old	3,616	1,772	498	903	257	115	622	1,150
5 years old	3,643	3,157	75	75	2,576	432	1,220	1,937

Table 1:15-1 Preprimary enrollment by level, control, and attendance status—Continued

Year and age	Total population, 3 to 5 years old	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
			Pre-K		Kindergarten			
			Public	Private	Public	Private	Full-day	Part-day
			(In thousands)					
1987								
Total, 3-5 years old	10,872	5,931	819	1,736	2,842	534	2,090	3,841
3 years old	3,569	1,022	264	703	24	31	378	644
4 years old	3,597	1,717	431	881	280	125	548	1,169
5 years old	3,706	3,192	124	152	2,538	378	1,163	2,028

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Preprimary Enrollment*, various years; *Digest of Education Statistics*, 1989; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, unpublished data.

Table 1:15-2 Standard errors for estimated percentages in text table in indicator 1:15

Year	Total percent enrolled	Enrollment by level and control: Public pre-K enrollment	Private pre-K enrollment	Public kindergarten enrollment	Private kindergarten enrollment	Enrollment by attendance status: Full-day	Part-day
1969	0.6	0.2	0.3	0.5	0.3	0.3	0.6
1970	0.7	0.2	0.3	0.6	0.3	0.3	0.6
1971	0.7	0.2	0.4	0.6	0.3	0.3	0.6
1972	0.7	0.3	0.4	0.6	0.3	0.4	0.6
1973	—	—	—	—	—	—	—
1974	0.7	0.3	0.4	0.6	0.3	0.4	0.7
1975	0.7	0.3	0.4	0.6	0.3	0.5	0.7
1976	—	—	—	—	—	—	—
1977	0.7	0.3	0.5	0.7	0.3	0.5	0.7
1978	—	—	—	—	—	—	—
1979	0.7	0.4	0.5	0.7	0.3	0.5	0.7
1980	0.7	0.4	0.5	0.6	0.3	0.5	0.7
1981	0.8	—	—	—	—	0.6	0.8
1982	0.8	0.4	0.5	0.7	0.3	0.6	0.7
1983	0.7	0.4	0.5	0.6	0.4	—	—
1984	0.7	0.4	0.5	0.6	0.3	0.6	0.7
1985	0.7	0.4	0.5	0.6	0.3	0.6	0.7
1986	0.7	0.4	0.5	0.6	0.3	0.6	0.7
1987	0.7	0.4	0.5	0.6	0.3	0.6	0.7

— Not avaiable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Preprimary Enrollment*, various years; *Digest of Education Statistics*, 1989; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, unpublished data.

Table 1:15-3 Standard errors for estimated numbers in table 1:15-1

Year and age	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
		Pre-K		Kindergarten			
		Public	Private	Public	Private	Full-day	Part-day
				(In thousands)			
1969							
Total, 3-5 years old	72	22	34	63	33	33	69
3 years old	24	12	21	4	5	15	20
4 years old	37	16	25	23	15	19	34
5 years old	41	9	9	44	28	23	44
1970							
Total, 3-5 years old	72	25	38	62	31	36	68
3 years old	28	15	24	5	4	17	24
4 years old	38	18	27	24	15	21	35
5 years old	40	9	9	43	26	24	43
1971							
Total, 3-5 years old	72	25	37	62	32	37	68
3 years old	27	13	23	7	7	17	23
4 years old	38	19	27	23	17	20	36
5 years old	31	8	8	41	26	25	41
1972							
Total, 3-5 years old	70	28	40	61	30	41	67
3 years old	30	16	26	6	5	19	25
4 years old	39	21	29	24	15	23	35
5 years old	35	8	8	40	25	27	40
1973							
Total, 3-5 years old	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—
1974							
Total, 3-5 years old	72	28	46	62	31	45	68
3 years old	33	17	29	6	5	21	28
4 years old	41	21	32	24	17	25	37
5 years old	34	8	10	39	25	30	40

Table 1:15-3 Standard errors for estimated numbers in table 1:15-1—Continued

Year and age	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
		Pre-K		Kindergarten			
		Public	Private	Public	Private	Full-day	Part-day
				(In thousands)			
1975							
Total, 3-5 years old	71	33	46	63	32	48	68
3 years old	33	18	28	5	6	22	27
4 years old	41	25	32	24	16	27	38
5 years old	33	11	11	39	26	32	40
1976							
Total, 3-5 years old	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—
1977							
Total, 3-5 years old	68	32	43	60	31	48	65
3 years old	32	19	27	5	6	20	27
4 years old	39	24	30	22	16	27	35
5 years old	31	10	10	37	25	33	39
1978							
Total, 3-5 years old	—	—	—	—	—	—	—
3 years old	—	—	—	—	—	—	—
4 years old	—	—	—	—	—	—	—
5 years old	—	—	—	—	—	—	—
1979							
Total, 3-5 years old	68	34	46	59	28	49	64
3 years old	34	20	29	6	3	23	27
4 years old	39	25	32	21	15	27	36
5 years old	29	11	10	36	23	33	38
1980							
Total, 3-5 years old	68	34	48	60	30	51	65
3 years old	35	20	31	6	6	24	30
4 years old	39	25	33	21	15	28	36
5 years old	28	9	10	35	24	34	38

Table 1:15-3 Standard errors for estimated numbers in table 1:15-1—Continued

Year and age	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
		Pre-K		Kindergarten			
		Public	Private	Public	Private	Full-day	Part-day
				(In thousands)			
1981							
Total, 3-5 years old	69	—	—	—	—	50	66
4 years old	39	—	—	—	—	27	37
5 years old	30	—	—	—	—	34	39
1982							
Total, 3-5 years old	70	37	49	61	31	51	67
3 years old	37	24	31	7	4	23	32
4 years old	36	24	31	7	4	23	32
5 years old	40	26	34	20	15	25	38
1983							
Total, 3-5 years old	72	39	51	61	34	—	—
3 years old	38	24	32	6	9	—	—
4 years old	41	27	35	21	18	—	—
5 years old	29	13	14	38	27	—	—
1984							
Total, 3-5 years old	73	37	52	63	30	56	69
3 years old	38	23	33	8	7	27	32
4 years old	42	26	36	22	15	30	39
5 years old	30	12	12	38	25	38	41
1985							
Total, 3-5 years old	73	39	53	65	32	59	70
3 years old	38	23	33	10	7	25	33
4 years old	42	29	36	23	16	32	39
5 years old	29	12	14	38	26	39	42
1986							
Total, 3-5 years old	73	39	54	65	33	60	70
3 years old	38	22	34	7	6	27	32
4 years old	43	29	37	22	15	32	40
5 years old	29	12	12	39	28	40	43

Table 1:15-3 Standard errors for estimated numbers in table 1:15-1—Continued

Year and age	Total enrolled	Enrollment by level and control				Enrollment by attendance status	
		Pre-K		Kindergarten			
		Public	Private	Public	Private	Full-day	Part-day
1987				(In thousands)			
Total, 3-5 years old	73	39	54	65	32	58	70
3 years old	38	22	34	7	8	26	32
4 years old	42	28	36	23	16	30	40
5 years old	30	15	17	40	26	40	43

— Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Preprimary Enrollment*, various years; *Digest of Education Statistics*, 1989; U.S. Department of Commerce, Bureau of the Census, Current Population Survey, unpublished data.

Indicator 1:16

Table 1:16-1 Enrollment in kindergarten through grade 12 of public and private elementary and secondary schools, with projections: Fall 1970–2000

Year	Public schools			Private schools		
	Grades [1] K-12	Grades [1] K-8	Grades 9-12	Grades [1] K-12	Grades [1] K-8	Grades 9-12
	(In thousands)			(In thousands)		
1970	45,909	32,577	13,332	5,363	4,052	1,311
1971	46,081	32,265	13,816	[2] 5,200	3,900	1,300
1972	45,744	31,831	13,913	[2] 5,000	3,700	1,300
1973	45,429	31,353	14,077	[2] 5,000	3,700	1,300
1974	45,053	30,921	14,132	[2] 5,000	3,700	1,300
1975	44,791	30,487	14,304	[2] 5,000	3,700	1,300
1976	44,317	30,006	14,311	5,167	3,825	1,342
1977	43,577	29,336	14,240	5,140	3,797	1,343
1978	42,540	28,328	14,223	5,086	3,732	1,353
1979	41,645	27,931	13,714	[2] 5,000	3,700	1,300
1980	40,987	27,674	13,313	5,331	3,992	1,339
1981	40,099	27,245	12,855	[2] 5,500	4,100	1,400
1982	39,652	27,156	12,496	[2] 5,600	4,200	1,400
1983	39,352	26,997	12,355	5,715	4,315	1,400
1984	39,295	26,918	12,377	[2] 5,700	4,300	1,400
1985	39,509	27,049	12,460	5,557	4,195	1,362
1986	39,837	27,404	12,434	[2] 5,452	4,116	1,336
1987	40,024	27,886	12,138	[2] 5,347	4,118	1,229
1988 [3]	40,196	28,390	11,806	5,241	4,036	1,206
		Projected			Projected	
1989	40,323	28,818	11,505	5,272	4,097	1,175
1990	40,772	29,373	11,399	5,340	4,176	1,164
1991	41,306	29,803	11,503	5,412	4,237	1,175
1992	41,883	30,189	11,694	5,486	4,292	1,195
1993	42,455	30,473	11,982	5,556	4,332	1,224
1994	43,023	30,642	12,381	5,621	4,356	1,265
1995	43,453	30,751	12,702	5,669	4,372	1,298
1996	43,788	30,785	13,003	5,705	4,376	1,328
1997	43,974	30,767	13,207	5,723	4,374	1,349
1998	43,997	30,763	13,234	5,725	4,373	1,352
1999	43,954	30,603	13,351	5,714	4,351	1,364
2000	43,835	30,417	13,418	5,695	4,324	1,371

[1] Includes most kindergarten and some nursery school enrollment.

[2] Estimated by NCES.

[3] Estimate.

NOTE: Detail may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2000*; *Digest of Education Statistics 1989*; and unpublished tabulations.

Table 1:18-1 Children under 18 in poverty, by race/ethnicity, and by family status: 1960–1987

Race/ Year	All families			Female-headed families			Percent of all children in poverty in families with female householder
	Total children under 18 in families	Number of children under 18 in poverty	Percent under 18, below poverty level	All children in female-headed households	Number of children under 18, in poverty	Percent below poverty level	
All races	(In thousands)			(In thousands)			
1960	65,275	17,228	26.4	5,987	4,095	68.4	23.8
1965	69,638	14,388	20.7	7,106	4,562	64.2	31.7
1970	68,815	10,235	14.9	8,847	4,689	53.0	45.8
1975	64,750	10,882	16.8	10,620	5,597	52.7	51.4
1980	62,168	11,114	17.9	11,547	5,866	50.8	52.8
1981	61,756	12,068	19.5	12,059	6,305	52.3	52.2
1982	61,565	13,139	21.3	—	—	—	—
1983	61,578	13,427	21.8	12,100	6,709	55.4	50.0
1984	61,681	12,929	21.0	12,536	6,772	54.0	52.4
1985	62,019	12,483	20.1	12,530	6,716	53.6	53.8
1986	62,009	12,257	19.8	12,763	6,943	54.4	56.6
1987	62,305	12,435	20.0	12,931	7,047	54.5	56.7
White							
1960	56,145	11,229	20.0	3,935	2357	59.9	21.0
1965	59,688	8,595	14.4	4,388	2321	52.9	27.0
1970	58,472	6,138	10.5	5,213	2247	43.1	36.6
1975	54,126	6,748	12.5	6,364	2813	44.2	41.7
1980	51,002	6,817	13.4	6,762	2813	41.6	41.3
1981	50,553	7,429	14.7	7,299	3120	42.7	42.0
1982	50,305	8,282	16.5	—	—	—	—
1983	50,183	8,534	17.0	7,149	3356	46.9	39.3
1984	50,192	8,086	16.1	7,352	3377	45.9	41.8
1985	50,358	7,838	15.6	7,464	3372	45.2	43.0
1986	50,356	7,714	15.3	7,602	3522	46.3	45.7
1987	50,373	7,550	15.0	7,577	3474	45.8	46.0

Table 1:18-1 Children under 18 in poverty, by race/ethnicity, and by family status: 1960–1987—Continued

Race/ Year	All families: Total children under 18 in families	All families: Number of children under 18 in poverty	All families: Percent under 18, below poverty level	Female-headed families: All children in female-headed households	Female-headed families: Number of children under 18, in poverty	Female-headed families: Percent below poverty level	Percent of all children in poverty in families with female householder
Black		(In thousands)			(In thousands)		
1959	7,667	5,022	65.5	1,808	1,475	81.6	29.4
1967	9,616	4,558	47.4	3,128	2,265	72.4	49.7
1970	9,448	3,922	41.5	3,520	2,383	67.7	60.8
1975	9,374	3,884	41.4	4,127	2,724	66.0	70.1
1980	9,287	3,906	42.1	4,543	2,944	64.8	75.4
1981	9,291	4,107	44.2	4,507	3,051	67.7	74.3
1982	9,269	4,388	47.3	—	—	—	—
1983	9,245	4,273	46.2	4,652	3,185	68.5	74.5
1984	9,356	4,320	46.2	4,884	3,234	66.2	74.9
1985	9,405	4,057	43.1	4,756	3,181	66.9	78.4
1986	9,467	4,037	42.6	4,845	3,251	67.1	80.5
1987	9,520	4,297	45.1	4,971	3,394	68.3	79.0
Hispanic							
1973	1,364	4,910	27.8	606	882	68.7	44.4
1975	1,691	4,896	34.5	694	1,015	68.4	41.0
1980	1,718	5,211	33.0	809	1,806	44.8	47.1
1981	1,874	5,291	35.4	909	1,351	67.3	48.5
1982	2,117	5,436	38.9	—	—	—	—
1983	2,251	5,977	37.7	956	1,354	70.6	42.5
1984	2,317	5,982	38.7	1093	1,541	70.9	47.2
1985	2,512	6,346	39.6	1247	1,721	72.5	49.6
1986	2,413	6,511	37.1	1194	1,791	66.7	49.5
1987	2,631	6,690	39.3	1241	1,771	70.1	47.2

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Poverty in the United States:* 1987, 1989.

Table 1:18-2 Standard errors for children under 18 in poverty, by race/ethnicity, and by family status: 1960–1987

Race/ Year	All families			Female-headed families			Percent of all children in poverty in families with female householder
	Total children under 18 in families	Number of children under 18 in poverty	Percent under 18, below poverty level	All children in female-headed households	Number of children under 18, in poverty	Percent below poverty level	
All races	(In thousands)			(In thousands)			
1960	—	277	0.4	188	159	1.6	0.8
1965	—	263	0.4	202	167	1.5	1.0
1970	—	234	0.4	221	169	1.4	1.3
1975	—	239	0.4	237	182	1.3	1.2
1980	—	241	0.4	245	186	1.2	1.2
1981	—	249	0.4	248	192	1.2	1.2
1982	—	256	0.4	—	—	—	—
1983	—	258	0.4	249	197	1.2	1.1
1984	—	254	0.4	252	198	1.1	1.1
1985	—	251	0.4	252	197	1.2	1.2
1986	—	250	0.4	253	200	1.1	1.2
1987	—	251	0.4	254	201	1.1	1.1
White							
1960	—	242	0.4	156	122	2.0	1.0
1965	—	219	0.4	164	122	1.9	1.2
1970	—	190	0.3	177	120	1.8	1.6
1975	—	198	0.4	193	133	1.6	1.5
1980	—	199	0.4	198	133	1.5	1.5
1981	—	206	0.4	204	140	1.5	1.5
1982	—	215	0.4	—	—	—	—
1983	—	218	0.4	203	145	1.5	1.4
1984	—	213	0.4	205	145	1.5	1.4
1985	—	211	0.4	206	145	1.5	1.4
1986	—	209	0.4	208	148	1.5	1.5
1987	—	207	0.4	208	147	1.5	1.5

Table 1:18-2 Standard errors for children under 18 in poverty, by race/ethnicity, and by family status: 1960–1987—Continued

Race/ Year	All families: Total children under 18 in families	All families: Number of children under 18 in poverty	All families: Percent under 18, below poverty level	Female-headed families: All children in female-headed households	Female-headed families: Number of children under 18, in poverty	Female-headed families: Percent below poverty level	Percent of all children in poverty in families with female householder
Black	(In thousands)			(In thousands)			
1960	—	129	1.4	99	91	2.4	1.7
1965	—	128	1.3	119	108	2.1	1.9
1970	—	126	1.3	123	110	2.0	2.0
1975	—	126	1.3	127	115	1.9	1.9
1980	—	126	1.3	128	117	1.8	1.8
1981	—	127	1.3	128	119	1.8	1.8
1982	—	128	1.3	—	—	—	—
1983	—	127	1.3	128	120	1.8	1.7
1984	—	128	1.3	129	121	1.7	1.7
1985	—	126	1.3	128	120	1.8	1.7
1986	—	126	1.3	129	121	1.7	1.6
1987	—	127	1.3	129	122	1.7	1.6
Hispanic							
1973	—	169	3.0	60	73	4.6	1.7
1975	—	169	2.8	65	78	4.3	1.7
1980	—	174	2.8	70	104	4.3	1.7
1981	—	175	2.7	74	90	3.8	1.7
1982	—	177	2.6	—	—	—	—
1983	—	185	2.5	76	90	3.6	1.6
1984	—	185	2.5	81	96	3.4	1.6
1985	—	191	2.4	86	101	3.1	1.5
1986	—	193	2.4	85	103	3.4	1.5
1987	—	195	2.3	86	103	3.2	1.5

— Not applicable.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Poverty in the United States:* 1987, 1989.

Table 1:19-1 Percent of high school students 16-24 years old who were employed, by sex and employment status: 1970–1989

Year	Male employed			Female employed		
	Total	Full time*	Part time	Total	Full time*	Part time
1970	30.9	3.7	27.2	27.3	1.7	25.6
1971	29.8	2.9	26.9	26.1	1.3	24.8
1972	32.0	4.1	27.9	27.5	1.7	25.8
1973	35.0	5.0	30.0	31.5	1.8	29.7
1974	33.6	4.6	29.0	30.9	2.0	28.9
1975	30.0	3.5	26.4	30.2	2.1	28.1
1976	31.1	3.5	27.6	30.4	1.6	28.8
1977	35.4	4.1	31.3	31.2	2.1	29.1
1978	35.6	4.0	31.5	35.4	2.3	33.1
1979	35.4	3.6	31.8	35.5	2.3	33.2
1980	32.5	2.9	29.7	33.2	1.7	31.5
1981	31.2	2.5	28.6	29.5	1.5	28.0
1982	25.7	1.7	24.0	29.0	1.3	27.7
1983	26.1	2.4	23.7	28.2	1.6	26.6
1984	29.4	2.3	27.2	30.1	0.9	29.2
1985	29.8	2.1	27.7	30.6	1.0	29.6
1986	30.9	2.4	28.5	34.6	1.3	33.3
1987	33.6	2.5	31.1	35.4	1.6	33.8
1988	34.6	2.9	31.7	35.7	1.5	34.2
1989	33.2	3.5	29.7	37.2	1.8	35.3

* 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations.

Table 1:19-2 Percent of high school students 16-24 years old who were employed, by race and employment status: 1970–1989

Year	White employed			Black employed		
	Total	Full time*	Part time	Total	Full time*	Part time
1970	31.6	2.8	28.8	15.3	2.5	12.8
1971	31.0	2.1	28.9	12.9	2.4	10.6
1972	33.3	3.1	30.3	11.5	2.6	8.9
1973	36.9	3.7	33.2	14.1	2.1	12.0
1974	35.6	3.6	32.0	16.1	2.1	14.0
1975	33.6	3.2	30.4	12.9	1.3	11.7
1976	34.8	2.7	32.1	12.1	2.4	9.7
1977	37.8	3.5	34.4	13.4	1.8	11.7
1978	39.8	3.5	36.2	16.3	1.8	14.5
1979	40.0	3.3	36.8	13.5	1.6	12.0
1980	37.0	2.4	34.6	13.1	2.0	11.2
1981	34.8	2.1	32.6	10.9	1.5	9.4
1982	31.4	1.9	29.5	8.6	0.1	8.6
1983	31.7	2.4	29.3	6.7	0.6	6.2
1984	33.7	1.8	31.8	13.3	0.8	12.4
1985	34.0	1.8	32.2	14.5	0.8	13.7
1986	36.9	2.1	34.8	14.2	0.9	13.3
1987	38.8	2.2	36.6	17.5	1.8	15.7
1988	38.9	2.3	36.6	19.3	1.5	17.7
1989	39.4	3.0	36.4	17.8	1.3	16.4

* 35 or more hours per week.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations.

Table 1:19-3 Standard errors for estimated percentages in table 1:19-1

Year	Male employed			Female employed		
	Total	Full time	Part time	Total	Full time	Part time
1970	1.0	0.4	1.0	1.1	0.3	1.0
1971	1.0	0.4	1.0	1.0	0.3	1.0
1972	1.0	0.4	1.0	1.0	0.3	1.0
1973	1.0	0.5	1.0	1.1	0.3	1.1
1974	1.0	0.5	1.0	1.1	0.3	1.0
1975	1.0	0.4	0.9	1.0	0.3	1.0
1976	1.0	0.4	1.0	1.0	0.3	1.0
1977	1.0	0.4	1.0	1.0	0.3	1.0
1978	1.0	0.4	1.0	1.1	0.3	1.1
1979	1.0	0.4	1.0	1.1	0.3	1.1
1980	1.0	0.4	1.0	1.1	0.3	1.1
1981	1.0	0.3	1.0	1.0	0.3	1.0
1982	1.0	0.3	0.9	1.1	0.3	1.0
1983	1.0	0.3	0.9	1.1	0.3	1.0
1984	1.0	0.3	1.0	1.1	0.2	1.1
1985	1.0	0.3	1.0	1.1	0.2	1.1
1986	1.0	0.3	1.0	1.1	0.3	1.1
1987	1.0	0.3	1.0	1.1	0.3	1.1
1988	1.1	0.4	1.0	1.2	0.3	1.1
1989	1.1	0.4	1.1	1.2	0.3	1.2

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations.

Table 1:19-4 Standard errors for estimated percentages in table 1:19-2

Year	White employed			Black employed		
	Total	Full time	Part time	Total	Full time	Part time
1970	0.8	0.3	0.8	4.0	1.7	3.7
1971	0.8	0.3	0.8	3.9	1.7	3.5
1972	0.8	0.3	0.8	3.8	1.9	3.4
1973	0.8	0.3	0.8	3.9	1.6	3.6
1974	0.8	0.3	0.8	3.7	1.5	3.5
1975	0.8	0.3	0.8	3.6	1.2	3.5
1976	0.8	0.3	0.8	3.5	1.7	3.2
1977	0.8	0.3	0.8	3.6	1.4	3.4
1978	0.8	0.3	0.8	3.5	1.3	3.3
1979	0.8	0.3	0.8	3.8	1.4	3.6
1980	0.8	0.3	0.8	3.9	1.6	3.6
1981	0.8	0.3	0.8	3.9	1.5	3.7
1982	0.8	0.2	0.8	3.9	0.4	3.9
1983	0.8	0.3	0.8	4.0	1.2	3.8
1984	0.9	0.2	0.9	4.0	1.1	3.9
1985	0.9	0.2	0.9	3.9	1.0	3.8
1986	0.9	0.3	0.9	3.9	1.0	3.8
1987	0.9	0.3	0.9	3.8	1.3	3.6
1988	0.9	0.3	0.9	3.8	1.2	3.7
1989	0.9	0.3	0.9	3.8	1.1	3.7

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics Derived from the Current Population Survey: 1940–1987*, and unpublished tabulations.

Indicator 1:20

Table 1:20-1 Eighth graders' attitudes about school climate, by race/ethnicity, and control of school: 1988

Statement about school climate	All 8th graders	Race/ethnicity					Control of school		
		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan native	Public	Catholic	Other private
		Percent who strongly agree or agree with statement							
Teaching is good	80.2	80.0	80.0	81.3	83.4	76.7	79.6	82.9	88.4
Teachers are interested in students	75.2	74.7	76.6	76.8	78.6	68.5	73.9	83.0	88.2
Discipline is fair	69.1	69.7	65.0	70.7	72.5	63.5	68.9	69.4	72.7
There is real school spirit	68.6	69.8	65.0	64.9	66.7	67.4	68.1	70.5	74.0
Teachers listen to what I have to say	68.4	67.1	73.2	70.6	74.9	62.1	67.5	73.3	78.2
Students get along with teachers	67.1	68.1	60.5	66.4	73.0	65.2	65.6	75.4	80.5
Teachers praise my effort when I work hard	63.3	60.3	72.1	70.7	70.8	63.3	62.3	66.9	74.8
Other students often disrupt class	77.9	77.3	80.5	79.1	76.1	79.0	79.0	70.8	67.8
Misbehaving students often get away with it	52.8	51.9	53.4	55.7	55.3	59.0	53.3	50.5	45.9
Disruptions by other students interfere with my learning	39.6	35.7	54.9	44.9	45.1	55.2	41.0	31.8	28.0
I often feel "put down" by my teachers	21.8	21.7	21.5	22.6	17.1	30.5	21.8	22.4	19.3
I don't feel safe at this school	11.8	9.9	18.0	16.1	12.2	17.4	12.5	7.6	5.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 survey.

Table 1:21-1 Trends in the use of drugs and alcohol by high school seniors: 1975–1989

Substance used	Class of 1975	1976	1977	1978	1979	1980	1981	1982
				Number				
Sample size	9,400	15,400	17,100	17,800	15,500	15,900	17,500	17,700
				Percent who ever used				
All illegal drugs *	55.2	58.3	61.6	64.1	65.1	65.4	65.6	64.4
Cocaine	9.0	9.7	10.8	12.9	15.4	15.7	16.5	16.0
Alcohol	90.4	91.9	92.5	93.1	93.0	93.2	92.6	92.8
				Percent who used in the last 12 months				
All illegal drugs *	45.0	48.1	51.1	53.8	54.2	53.1	52.1	49.4
Cocaine	5.6	6.0	7.2	9.0	12.0	12.3	12.4	11.5
				Percent who used in the last 30 days				
All illegal drugs *	30.7	34.2	37.6	38.9	38.9	37.2	36.9	32.5
Cocaine	1.9	2.0	2.9	3.9	5.7	5.2	5.8	5.0
Alcohol	68.2	68.3	71.2	72.1	71.8	72.0	70.7	69.7

Substance used	Class of 1983	1984	1985	1986	1987	1988	1989
			Number				
Sample size	16,300	15,900	16,000	15,200	16,300	16,300	16,700
			Percent who ever used				
All illegal drugs *	62.9	61.6	60.6	57.6	56.6	53.9	50.9
Cocaine	16.2	16.1	17.3	16.9	15.2	12.1	10.3
Alcohol	92.6	92.6	92.2	91.3	92.2	92.0	90.7
			Percent who used in the last 12 months				
All illegal drugs *	47.4	45.8	46.3	44.3	41.7	38.5	35.4
Cocaine	11.4	11.6	13.1	12.7	10.3	7.9	6.5
			Percent who used in the last 30 days				
All illegal drugs *	30.5	29.2	29.7	27.1	24.7	21.3	19.7
Cocaine	4.9	5.8	6.7	6.2	4.3	3.4	2.8
Alcohol	69.4	67.2	65.9	65.3	66.4	63.9	60.0

* Includes marijuana, hallucinogens, cocaine, and heroin, and other opiates, stimulants, sedatives, or tranquilizers not under doctor's orders. About 75 percent of these users reported smoking marijuana.

SOURCE: U.S. Department of Health and Human Services; Alcohol, Drug Abuse, and Mental Health Administration; National Institute on Drug Abuse, *Drug Use Among American High School Students, College Students, and Other young Adults*, 1989.

Table 1:21-2 Confidence intervals (95 percent level) for estimated percentages in table 1:21-1

Observed percent*		Number of cases 10,000	15,000	20,000
95	+	0.7	0.6	0.6
	-	.8	.7	.7
90	+	.9	.9	.8
	-	1.0	.9	.9
85	+	1.1	1.0	1.0
	-	1.2	1.1	1.1
80	+	1.3	1.2	1.1
	-	1.3	1.2	1.2
70	+	1.5	1.4	1.3
	-	1.5	1.4	1.3
50	+	1.6	1.5	1.4
	-	1.6	1.5	1.4
30	+	1.5	1.4	1.3
	-	1.5	1.4	1.3
20	+	1.3	1.2	1.2
	-	1.3	1.2	1.1
15	+	1.2	1.1	1.1
	-	1.1	1.0	1.0
10	+	1.0	.9	.9
	-	.9	.9	.8
5	+	.8	.7	.7
	-	.7	.6	.6
3	+	.6	.6	.5
	-	.5	.5	.5
1	+	.4	.3	.3
	-	.3	.3	.2

* The table entries, when added to and subtracted from the observed percent, establish the limits of the 95 percent confidence interval (calculated as 1.96 sampling errors).

SOURCE: L.D. Johnston, J.G. Bachman, and P.M. O'Malley, *Monitoring the Future*, Institute for Social Research, University of Michigan, Ann Arbor, Michigan, 1984.

Indicator 1:22

Table 1:22-1 A comparison of teacher and public perceptions of problems in the public schools

Problem	All teachers 1984	All teachers 1989	Elementary teachers 1984	Elementary teachers 1989	High school teachers 1984	High school teachers 1989	U.S. Public 1988
	Percent of respondents who think this is a problem						
Parents lack of interest/support	31	34	35	39	26	25	7
Lack of proper financial support	21	27	20	28	21	25	12
Pupils' lack of interest/truancy	20	26	17	21	23	35	5
Lack of discipline	19	25	20	29	18	22	19
Problems with administration	10	7	8	10	12	7	1
Poor curriculum/ standards	7	6	7	7	7	6	11
Use of drugs	5	13	3	10	6	19	32
Low teacher salaries	5	7	5	8	5	5	4
Difficulty getting good teachers	4	2	3	3	4	1	11
Large schools/ overcrowding	4	7	5	8	2	3	6
Teachers' lack of interest	4	3	5	3	4	3	3
Lack of respect for teachers/ other students	4	7	4	8	4	5	2
One-parent households	4	8	4	9	4	7	(*)
Lack of public support	3	14	3	12	4	15	(*)

Table 1:22-1 A comparison of teacher and public perceptions of problems in the public schools—Continued

Problem	All teachers 1984	All teachers 1989	Elementary teachers 1984	Elementary teachers 1989	High school teachers 1984	High school teachers 1989	U.S. Public 1988
	Percent of respondents who think this is a problem						
Communication problems	3	3	4	3	3	4	1
Government interference/regulation	3	5	2	6	4	4	(*)
Integration/busing	2	(*)	2	(*)	2	(*)	4
Lack of proper facilities	2	4	2	4	3	5	1
Parental involvement with school activities	2	3	3	3	2	2	1
Mismanagement of funds/programs	2	2	3	1	2	4	1
Moral standards	2	4	2	4	2	7	6
Drinking/alcoholism	2	2	2	2	3	7	5
Lack of needed teachers	2	2	2	2	1	2	2
Crime/vandalism	1	1	(*)	1	2	1	3
Miscellaneous/other	—	25	—	27	—	27	5
No answer	—	4	—	4	—	4	—

— Not available.

* Less than one-half of 1 percent.

NOTE: Figures add to more than 100 percent because of multiple answers. The standard error of estimated percentages between 30 and 70 percent is a maximun of 2 percentage points. For estimated percentages less than 30 and greater than 70, the standard errors are smaller.

SOURCE: "The Second Gallup/Phi Delta Kappan Poll of Teacher Attitudes Toward the Public Schools," *Phi Delta Kappan*, June 1989.

Indicator 1:23

Table 1:23-1 Revenue sources for public elementary and secondary schools: Selected school years ending 1920–1988

School Year Ending	Gross National Product[1]	Total revenues[1]	School revenues as a percent of the GNP	Sources		
				Local[2]	State	Federal
		In billions			Percent of total	
1920	—	—	—	83.2	16.5	0.3
1930	—	—	—	82.7	16.9	0.4
1940	—	—	—	68.0	30.3	1.8
1950	—	—	—	57.3	39.8	2.9
1960	—	—	—	56.5	39.1	4.4
1970	3,106	129	4.2	52.1	39.9	8.0
1971	3,149	137	4.4	52.5	39.1	8.4
1972	3,253	149	4.6	52.8	38.3	8.9
1973	3,459	142	4.1	51.3	40.0	8.7
1974	3,533	143	4.0	50.1	41.4	8.5
1975	3,443	148	4.3	48.8	42.2	9.0
1976	3,564	154	4.3	46.5	44.6	8.9
1977	3,704	153	4.1	47.8	43.4	8.8
1978	3,897	151	3.9	47.6	43.0	9.4
1979	4,075	144	3.5	44.6	45.6	9.8
1980	4,110	142	3.5	43.4	46.8	9.8
1981	4,137	143	3.5	43.4	47.4	9.2
1982	4,122	143	3.5	45.0	47.6	7.4
1983	4,099	147	3.6	45.0	47.9	7.1
1984	4,375	151	3.5	45.4	47.8	6.8
1985	4,571	160	3.5	44.4	48.9	6.6
1986	4,729	170	3.6	43.9	49.4	6.7
1987	4,835	174	3.6	43.9	49.8	6.4
1988	—	—	—	44.1	49.5	6.3

— Not available.

[1] In billions of 1989 constant dollars.

[2] Includes intermediate sources.

NOTE: Percents may not add to 100 due to rounding. Some figures revised from previously published data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1988* (based on Common Core of Data survey and its predecessors).

Indicator 1:24

Table 1:24-1 Total and current expenditure per pupil in averge daily attendance in public elementary and secondary schools: Selected school years ending 1950--1989

School Year Ending	Constant 1989–90[1] dollars	
	Total expenditure[2] per pupil	Current expenditure[3] per pupil
1950	$1,396	$1,127
1952	1,524	1,194
1954	1,659	1,252
1956	1,829	1,389
1958	1,987	1,516
1960	2,037	1,622
1962	2,184	1,770
1964	2,307	1,899
1966	2,606	2,144
1968	2,939	2,460
1970	3,212	2,744
1971	3,359	2,917
1972	3,481	3,055
1973	3,597	3,199
1974	3,721	3,293
1975	3,792	3,350
1976	3,887	3,445
1977	3,933	3,548
1978	4,066	3,702
1979	4,102	3,749
1980	4,081	3,722
1981	4,055	3,655
1982	[4] 4,049	3,683
1983	[4] 4,184	3,826
1984	[4] 4,378	3,963
1985	[4] 4,522	4,170
1986	[4] 4,755	4,389
1987	[4] 4,990	4,547
1988	[4] 5,099	4,641
1989	[4] 5,172	[5] 4,719

[1] Based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, and adjusted to a school-year basis.

[2] Total expenditure includes all current expenditures, capital outlay and interest on school debt.

[3] Current expenditure includes expenditures for operating local public schools, excluding capital outlay and interest on debt.

[4] Estimated.

[5] Preliminary data.

NOTE: Some data revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, various years; *Revenues and Expenditures for Public Elementary and Secondary Education*, Common Core of Data survey, various years; and unpublished tabulations.

Table 1:24-2 Current expenditure per pupil in average daily attendance in public elementary and secondary schools, by State: School years ending 1970 and 1988

State	Expenditure per pupil (Constant 1989 dollars)		Percent increase
	1970	1988	
United States	$2,609.44	$4,653.69	78.3
Alabama	1,831	2,983	62.9
Alaska	3,779	8,748	131.5
Arizona	2,423	4,109	69.6
Arkansas	1,912	3,280	71.6
California*	2,918	4,214	44.4
Colorado	2,484	4,897	97.2
Connecticut	3,201	6,837	113.6
Delaware	3,029	5,506	81.8
District of Columbia	3,426	6,730	96.4
Florida	2,464	4,491	82.3
Georgia	1,979	3,769	90.4
Hawaii	2,830	4,301	52.0
Idaho	2,029	2,927	44.2
Illinois	3,059	4,795	56.7
Indiana	2,450	4,164	69.9
Iowa	2,840	4,526	59.3
Kansas	2,595	4,473	72.4
Kentucky	1,834	3,304	80.2
Louisiana	2,181	3,444	57.9
Maine	2,329	4,673	100.6
Maryland	3,089	5,708	84.7
Massachusetts	2,891	6,004	107.7
Michigan	3,042	5,149	69.2
Minnesota	3,042	4,813	58.2
Mississippi	1,686	2,796	65.8

Table 1:24-2 Current expenditure per pupil in average daily attendance in public elementary and secondary schools, by State: School years ending 1970 and 1988—Continued

State	Expenditure per pupil (Constant 1989 dollars) 1970	1988	Percent increase
Missouri	$2,386	$4,155	74.1
Montana	2,632	4,660	77.1
Nebraska	2,477	4,327	74.7
Nevada	2,588	3,976	53.6
New Hampshire	2,433	4,891	101.0
New Jersey	3,419	7,204	110.7
New Mexico	2,379	4,051	70.2
New York	4,466	7,848	75.7
North Carolina	2,060	3,696	79.5
North Dakota	2,322	3,862	66.3
Ohio	2,457	4,388	78.6
Oklahoma	2,033	3,394	67.0
Oregon	3,113	5,256	68.8
Pennsylvania	2,968	5,475	84.5
Rhode Island	2,999	5,848	95.0
South Carolina	2,063	3,740	81.3
South Dakota	2,322	3,566	53.5
Tennessee	1,905	3,387	77.8
Texas	2,100	3,960	88.5
Utah	2,107	2,693	27.8
Vermont	2,716	5,714	110.4
Virginia	2,383	4,553	91.1
Washington	3,079	4,570	48.4
West Virginia	2,255	4,234	87.8
Wisconsin	2,972	5,210	75.3
Wyoming	2,881	5,543	92.4

* Estimated by the Center for Education Statistics.

NOTE: 1989-90 dollars are based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor. These data do not reflect differences in inflation rates from State to State.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, various years; *Revenues and Expenditures for Public Elementary and Secondary Education*, Common Core of Data survey, various years; and unpublished tabulations.

Table 1:25-1 State indices of public school revenues per pupil in relation to per capita income: School years ending 1980 and 1987

State	State index 1980	State index 1987	State and local education revenues (thousands) 1987	Public elementary/ secondary enrollment, 1986–87	Per pupil education revenues 1987	Total personal income (millions) * 1986	Total population (thousands) * 1986	Per capita personal income * 1986
Alabama	19.9	22.1	$1,829,237	733,735	$2,493	$45,736	4,050	$11,293
Alaska	34.3	32.5	645,873	107,973	5,982	9,780	532	18,383
Arizona	25.1	26.2	1,917,559	534,538	3,587	44,857	3,279	13,680
Arkansas	18.4	20.4	983,446	437,438	2,248	26,135	2,371	11,023
California	21.6	21.8	16,001,481	4,377,989	3,655	453,404	27,001	16,792
Colorado	26.9	27.0	2,278,132	558,415	4,080	49,364	3,266	15,115
Connecticut	18.6	27.2	2,491,509	468,847	5,314	62,418	3,193	19,548
Delaware	27.1	27.1	396,394	94,410	4,199	9,814	633	15,504
District of Columbia	20.2	24.3	394,335	85,612	4,606	11,803	623	18,945
Florida	22.0	26.1	6,135,339	1,607,320	3,817	170,994	11,694	14,622
Georgia	20.2	23.4	3,445,300	1,096,425	3,142	82,069	6,100	13,454
Hawaii	19.3	21.6	522,624	164,640	3,174	15,634	1,065	14,680
Idaho	20.6	21.3	496,322	208,391	2,382	11,192	1,002	11,170
Illinois	20.5	20.4	5,763,963	1,825,185	3,158	179,076	11,551	15,503
Indiana	18.8	26.7	3,387,264	966,780	3,504	72,217	5,503	13,123
Iowa	24.5	27.3	1,751,758	481,286	3,640	37,999	2,850	13,333
Kansas	24.7	26.5	1,600,681	416,091	3,847	35,667	2,459	14,505
Kentucky	18.4	20.2	1,463,999	642,778	2,278	41,985	3,726	11,268
Louisiana	21.2	23.9	2,138,810	795,188	2,690	50,539	4,499	11,233
Maine	22.0	26.8	730,136	211,752	3,448	15,056	1,172	12,846
Maryland	24.2	26.7	3,058,772	675,747	4,527	75,550	4,461	16,936
Massachusetts	31.0	26.5	3,901,526	833,918	4,679	102,884	5,834	17,635
Michigan	25.4	27.4	6,817,342	1,681,880	4,053	135,320	9,139	14,807
Minnesota	27.7	27.9	2,969,938	711,134	4,176	63,173	4,213	14,995
Mississippi	17.6	20.0	963,669	498,639	1,933	25,361	2,624	9,665
Missouri	21.0	23.1	2,576,645	800,606	3,218	70,618	5,064	13,945
Montana	28.2	32.2	579,150	153,327	3,777	9,583	817	11,729
Nebraska	23.5	26.0	943,891	267,139	3,533	21,683	1,598	13,569
Nevada	18.2	22.8	569,389	161,239	3,531	14,949	967	15,459
New Hampshire	14.7	23.3	625,241	163,717	3,819	16,845	1,027	16,402
New Jersey	29.1	30.3	6,302,219	1,107,467	5,691	143,297	7,625	18,793
New Mexico	25.2	27.4	885,089	281,943	3,139	16,944	1,479	11,456
New York	30.5	34.2	14,994,974	2,607,719	5,750	299,324	17,795	16,821
North Carolina	20.7	23.7	3,199,286	1,085,248	2,948	78,654	6,331	12,424
North Dakota	24.4	25.9	382,038	118,703	3,218	8,441	679	12,432
Ohio	22.1	23.9	5,944,785	1,793,508	3,315	148,929	10,748	13,856
Oklahoma	21.9	22.5	1,631,875	593,187	2,751	40,493	3,306	12,248
Oregon	25.9	29.3	1,740,468	449,307	3,874	35,778	2,702	13,241
Pennsylvania	26.2	32.8	7,840,829	1,674,161	4,683	169,857	11,894	14,281
Rhode Island	25.1	30.8	601,987	134,136	4,488	14,219	975	14,584

Table 1:25-1 State indices of public school revenues per pupil in relation to per capita income: School years ending 1980 and 1987—Continued

State	State index 1980	State index 1987	State and local education revenues (thousands) 1987	Public elementary/ secondary enrollment, 1986-87	Per pupil education revenues 1987	Total personal income (millions) * 1986	Total population (thousands) * 1986	Per capita personal income * 1986
South Carolina	18.8	26.2	$1,811,742	611,629	$2,962	$38,162	3,381	$11,287
South Dakota	21.5	24.9	368,209	125,458	2,935	8,351	708	11,795
Tennessee	16.8	18.7	1,835,485	818,073	2,244	57,523	4,800	11,984
Texas	20.4	25.5	11,054,468	3,209,515	3,444	225,203	16,689	13,494
Utah	24.2	23.7	1,083,370	415,994	2,604	18,253	1,664	10,969
Vermont	26.1	30.0	368,274	92,112	3,998	7,207	541	13,322
Virginia	21.0	24.3	3,659,143	975,135	3,752	89,372	5,795	15,422
Washington	25.8	25.8	2,922,186	761,428	3,838	66,343	4,463	14,865
West Virginia	23.3	30.7	1,144,572	351,837	3,253	20,296	1,917	10,587
Wisconsin	25.6	29.5	3,148,923	767,819	4,101	66,590	4,783	13,922
Wyoming	25.7	45.6	586,644	100,955	5,811	6,455	507	12,732

* The figures shown are for calendar year 1986.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1989* (based on Common Core of Data Surveys, various years), and unpublished data; National Education Association, *Estimates of School Statistics, 1986-87*, 1987, copyrighted; U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income: 1929-82*, 1984, and *Regional Economic Information System*, August 1987.

Indicator 1:26

Table 1:26-1 Total types of school staff: Selected years 1950–1989

Year ending	Total	Principals and assistant principals	School district supervisors	Classroom teachers	Other instructional staff	Support Staff
1950	1,300,031	43,[illegible]7	33,642	913,671	—	303,280
1960	2,089,283	63[illegible]	42,423	1,353,372	36,127	589,531
1970	3,367,772	90,593	65,282	2,023,253	155,038	1,009,913
1981	4,167,608	107,061	78,784	2,183,538	451,779	1,229,929
1985	4,062,619	124,536	65,222	2,168,298	399,301	1,305,262
1986	4,160,521	129,297	67,404	2,206,894	420,948	1,[illegible]5,988
1987	4,233,671	131,564	74,541	2,244,445	446,916	1,336,205
1988	4,311,941	125,927	74,191	2,279,241	454,458	1,378,124
1989	4,366,678	126,508	68,498	2,316,428	477,344	1,377,900

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*, Common Core of Data survey, and unpublished estimates; *Digest of Education Statistics*, forthcoming.

Table 1:27-1 Estimated annual salary of teachers in public elementary and secondary schools, and percent increase since 1960: 1960–1988

School year	All teachers	Percent change since 1960	Elementary teachers	Percent change since 1960	Secondary teachers	Percent change since 1960
			1989–90 constant dollars			
1959-60	$ 21,599	—	$ 20,821	—	$ 22,814	—
1961-62	23,293	7.8	22,554	8.3	24,391	6.9
1963-64	24,745	14.6	23,961	15.1	25,864	13.4
1965-66	25,844	19.7	25,023	20.2	26,944	18.1
1967-68	27,755	28.5	26,952	29.4	28,761	26.1
1969-70	29,088	34.7	28,367	36.2	29,982	31.4
1970-71	29,679	37.4	28,888	38.7	30,639	34.3
1971-72	29,947	38.6	29,079	39.7	30,952	35.7
1972-73	30,140	39.5	29,385	41.1	31,209	36.8
1973-74	29,382	36.0	28,664	37.7	30,219	32.5
1974-75	28,570	32.3	27,816	33.6	29,451	29.1
1976-77	28,922	33.9	28,131	35.1	29,835	30.8
1977-78	28,834	33.5	28,117	35.0	29,654	30.0
1978-79	27,898	29.2	27,247	30.9	28,674	25.7
1979-80	26,163	21.1	25,506	22.5	26,964	18.2
1980-81	25,902	19.9	25,294	21.5	26,633	16.7
1981-82	26,039	20.6	25,446	22.2	26,757	17.3
1982-83	26,792	24.0	26,186	25.8	27,563	20.8
1983-84	27,375	26.7	26,800	28.7	28,170	23.5
1984-85	30,753	42.4	27,856	33.8	29,070	27.4
1985-86	29,443	36.3	28,822	38.4	30,224	32.5
1986-87	30,360	40.6	29,699	42.6	31,167	36.6
1987-88	30,788	42.5	30,106	44.6	31,722	39.0

SOURCE: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 1989*; National Education Association, *Estimates of School Statistics, 1987-88*; and unpublished data.

Indicator 1:29

Table 1:29-1 Selected characteristics of school administrators

Characteristic	Public	Percent of total	Private	Percent of total
Total administrators	77,890	100.0	25,401	100.0
Sex				
Male	58,585	75.2	12,131	47.8
Female	19,118	24.5	13,243	52.1
Not reported	—	—	—	—
Race				
American Indian or Alaskan native	821	1.1	—	—
Asian or Pacific Islander	434	0.6	—	—
Black	6,696	8.6	771	3.0
White	69,048	88.6	24,056	94.7
Not reported	890	1.1	—	—
Ethnic origin				
Hispanic	2,483	3.2	629	2.5
Non-Hispanic	73,245	94.0	24,167	95.1
Not reported	2,162	2.8	604	2.4
Age				
Under 40	14,430	18.5	7,608	30.0
40 to 44	17,755	22.8	5,352	21.1
45 to 49	16,408	21.1	4,497	17.7
50 to 54	14,936	19.2	2,979	11.7
55 or over	13,891	17.8	4,703	18.5
Not reported	469	0.6	—	—
Region				
Northeast	13,854	17.8	6,299	24.8
Midwest	22,465	28.8	7,644	30.1
South	25,890	33.2	6,995	27.5
West	15,680	20.1	4,463	17.6

— Too few cases (less than 30) for a reliable estimate.

NOTE: Details may not add to totals due to rounding. Cell entries may be underestimates due to item nonresponse (Not reported).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, 1987-88.

General Information

The information presented in this report was obtained from many sources, including Federal and State agencies, private research organizations, and professional associations. The data were collected using many research methods including surveys of a universe (such as all colleges) or of a sample, compilations of administrative records, and statistical projections. Users of *The Condition of Education* should take particular care when comparing data from different sources. Differences in procedures, timing, phrasing of questions, interviewer training, and so forth mean that the results are not strictly comparable. Following the general discussion of data accuracy below, descriptions of the information sources and data collection methods are presented, grouped by sponsoring organization. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available.

Unless otherwise noted, all comparisons cited in the text were tested for significance using t-tests and are significant at the .05 level. When other tests were used, they are described in the supplemental note for the indicator.

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. In addition to such sampling errors, all surveys, both universe and sample, are subject to design, reporting, and processing errors and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. The sample estimate and an estimate of its standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. If all possible samples were selected, each of these surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average value from all possible samples; 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples; and 99 percent of all intervals from 2.5 standard errors below the estimate to 2.5 standard errors above the estimate would include the average value of all possible samples.

These intervals are called 90 percent, 95 percent, and 99 percent confidence intervals, respectively.

To illustrate this further, consider table 1:1-2 for estimates of standard errors from Census Current Population Surveys. For the estimate of the percentage of white males 8 years old who were 1 or more years below modal grade (24.0 percent), the table shows a standard error of 1.0. Therefore, we can construct a 95 percent confidence interval from 23.0 to 25.0 (24.0 ± 2 x 1.0). If this procedure were followed for every possible sample, about 95 percent of the intervals would include the average for all possible samples.

Standard errors can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" (if "a" and "b" are approximately independent) is:

$$se_{a,b} = \sqrt{se_a^2 + se_b^2}$$

It should be noted that most of the standard errors presented in the indicators and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and that could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

The preceding discussion on sampling variability was directed toward a situation concerning one or two estimates. Determining the accuracy of statistical projections is more difficult. In general, the further away the projection date is from the date of the actual data being used for the projection, the greater the possible error in the projection. If, for instance, annual data from 1970 to 1987 are being used to project enrollment in institutions of higher education, the further beyond 1987 one projects, the more variability in the projection. One will be less sure of the 1992 enrollment projection than of the 1988 projection. A detailed discussion of the projections methodology is contained in *Projections of Education Statistics to 2000* (National Center for Education Statistics, 1989).

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors are of two kinds—random and nonrandom. Random nonsampling errors may arise when respondents or interviewers interpret questions differently, when

respondents must estimate values, or when coders, keyers, and other processors handle answers differently. Nonrandom nonsampling errors result from total nonresponse (no usable data obtained for a sampled unit), partial or item nonresponse (only a portion of a response may be usable), inability or unwillingness on the part of respondents to provide correct information, difficulty interpreting questions, mistakes in recording or keying data, errors of collection or processing, and overcoverage or undercoverage of the target universe. Random nonresponse errors usually, but not always, result in an understatement of sampling errors and thus an overstatement of the precision of survey estimates. Since estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. An adjustment made for either type of nonresponse is often referred to as an imputation—substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members which have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent.

1. Federal Agency Sources

Bureau of the Census
U.S. Department of Commerce

Current Population Survey

Current estimates of school enrollment and social and economic characteristics of students are based on data collected in the Census Bureau's monthly household survey of about 60,000 households, the Current Population Survey (CPS). The CPS covers 729 sample areas consisting of 1,973 counties, independent cities, and minor civil divisions throughout the 50 States and the District of Columbia. The current sample was selected from 1980 census files and is periodically updated to reflect new housing construction.

The primary function of the monthly CPS is to collect data on labor force participation of the civilian noninstitutional population (It excludes military personnel and inmates of institutions.) In October of each year, questions on school enrollment by grade and other school characteristics are asked about each member of the household. A report on the educational attainment of the population is produced from data gathered in March of each year when supplemental questions on person's income are asked. The estimation procedure employed for the monthly CPS data involves inflating weighted sample results to independent estimates for the total civilian noninstitutional population by age, sex, race, and Hispanic origin. These independent estimates are derived from statistics from decennial censuses of the population: statistics on births, deaths, and immigration and emigration; and statistics on the strength of the Armed Forces. Generalized standard error tables are provided in the *Current Population Reports*. The data are subject to both nonsampling and sampling errors.

Further information is available in the *Current Population Reports*, Series P-20, or by contacting:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population aged 3 years old and over. Annual reports documenting school enrollment of the population have

been produced by the Bureau of the Census since 1946. The latest report is *Current Population Reports*, Series P-20, No. 429, "School Enrollment—Social and Economic Characteristics of Students: October 1986." All sample surveys are subject to sampling and nonsampling error. The main sources of nonsampling error in the supplement are those inherent in any household survey. When a household respondent reports for all individuals in the household, is that person knowledgeable about the grade or level of school, type of school, or full-time status? In addition, some analysts believe social acceptability of response causes biased reporting, such as reluctance to report lack of a high school diploma; some dismiss it. Household-reported data may not be consistent with administrative data because definitions may not be the same. An additional source of variation in statistics reported may be a change in the survey universe over time. For example, a significantly larger proportion of young men were members of the Armed Forces in the late 1960s and early 1970s, than before or after and, therefore, were not in the CPS universe. That caused a short-term increase in the enrollment *rate* of young men, which was greater than the increase in numbers of enrollees would indicate. Other events may similarly affect survey data. The user must be mindful of external events as well as the character of the population being measured when describing survey trends.

An advantage of household survey data over administrative data is the availability of demographic, social, and economic data for the student and family not available in administrative data. Beginning with data for October 1981, tabulations have been controlled to the 1980 census. Estimates for earlier years were controlled to earlier censuses.

Questions concerning the CPS school enrollment data may be directed to:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

National Center for Education Statistics
U.S. Department of Education

Common Core of Data

The National Center for Education Statistics (NCES) uses the Common Core of Data (CCD) survey to acquire and maintain statistical data on the 50 States, the District of Columbia, and the outlying areas from the universe of State-level education agencies. Information about staff and students is collected annually at the school, LEA (local education agency or school district) and State levels. Information about revenues and expenditures is also collected at the State level. Data are collected for a particular school year (July 1 through June 30) via survey instruments sent to the States by October 15 of the subsequent school year. States have 2 years in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition of *The Condition of Education* is not subject to sampling error. However, nonsampling error could come from two sources—nonreturn and inaccurate reporting. Almost all of the States submit the six CCD survey instruments each year, but there are many delays in submitting data and the submissions are sometimes incomplete.

Understandably, when 57 education agencies compile and submit data for over 85,000 public schools and approximately 15,800 local school districts, misreporting can occur. Typically, this results from varying interpretation of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the Council of Chief State School Officers (CCSSO) and its Committee on Evaluation and Information Systems (CEIS).

The State education agencies report data to NCES for which NCES reimburses them from data collected and edited in the regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time this has meant fewer missing data cells in each State's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared State summary forms are returned to the State education agencies for verification. States are also given an opportunity to revise their State-level aggregates from the previous survey cycle.

Sources of Data

Questions concerning the "Common Core of Data" can be directed to:

George Wade
Elementary and Secondary Education
Statistics Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5651

International Assessment of Educational Progress

Five countries and four Canadian provinces (three provinces assessed two separate language groups) participated in the International Assessment of Educational Progress (IAEP). Results of 12 student populations are presented in this report: Ireland; Korea; in Canada: British Columbia, New Brunswick (English), New Brunswick (French), Ontario (English), Ontario (French), Quebec (English), and Quebec (French); Spain; United Kingdom (students from Scotland, England and Wales); and the United States.

From each population, a representative sample of 13-year-olds was assessed in mathematics and science. Samples were drawn at random from about 100 schools selected with probability proportional to their size, and included about 2,000 students. In the United States, the sample size was about 1,000 students from 200 schools. A total of approximately 24,000 students was surveyed. School participation rates ranged from 70 to 100 percent, and student participation rates, from 73 to 98 percent. Students were administered a 45-minute mathematics assessment consisting of 63 questions and a 45-minute science assessment made up of 60 questions. Items were selected from the total pool of 281 mathematics and 188 science questions used in the 1986 National Assessment of Educational Progress (NAEP). Questions were translated from English to French, Korean, and Spanish and then independently translated from the non-English language back to English. The back-translated versions were compared with the original English to ensure that the translations were accurate. Questions were also adapted for cultural differences. For example, units of measurement, the names of children, and species of plants or animals were changed to reflect local usage and environments. Students also answered questions about their school experiences and attitudes toward mathematics and science, and their teachers rated students exposure to the concepts tested by the items. All countries and provinces followed standardized procedures and administered the assessments during February 1988.

The sampling designs for each of the populations may be described as stratified cluster samples. The participants, however, were free to design their surveys independently as long as certain specific rules were followed. The principal requirement was that their data be amenable to analysis as a paired cluster design, thus permitting the use of a jackknife procedure for the estimation of standard errors.

With two exceptions, all of the surveys followed the same two-stage sampling process. In the first stage, schools were selected with probabilities proportional to estimated size (number of 13-year-old students). At the second stage, subsamples of students were randomly drawn from within each selected school. Typically, about 100 schools were selected at the first stage and about 2,000 students at the second stage.

For further information about this survey contact:

Gary W. Phillips
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) is a Congressionally mandated study funded by the Office of Educational Research and Improvement, U.S. Department of Education. The overall goal of the project is to determine the Nation's progress in education. To accomplish this goal, a cross-sectional study was designed and initially implemented in 1969. Periodically, NAEP has gathered information about levels of educational achievement across the country. NAEP has surveyed the educational accomplishments of 9-,13-, and 17-year-old students, and occasionally young adults, in 10 learning areas. Different learning areas were assessed annually and, as of 1980–81, biennially. Most areas have been periodically reassessed in order to measure possible changes in education achievement.

The mathematics, reading, computer competency, and literature and U.S. history assessments presented in this publication were conducted by either the Education Commission of the States (1969–1983) or the Educational Testing Service (1983 to the present). NAEP in-school assessments were based on a deeply stratified three-stage sampling design to obtain a nationally representative sample by age and,

beginning in 1983–84, by grade. The first stage of sampling entails defining and selecting primary sampling units (PSU's). For each age/grade level (3, 7, and 11), the second stage entails enumerating, stratifying, and randomly selecting schools, both public and private, within each PSU selected at the first stage. The third stage involves randomly selecting students within a school for participation in NAEP. Assessment exercises were administered to small groups of students by specially trained personnel.

Information from NAEP is subject to both nonsampling and sampling error. Two possible sources of nonsampling error are nonparticipation and faulty instrumentation. The effects of nonparticipation are in some ways reduced through oversampling, although this does not assess the bias of nonparticipants. Instrumentation nonsampling error includes whether the NAEP assessment instruments measure what is being taught and in turn what is being learned by the students, ambiguous items or instructions, and insufficient time limits.

For further information on NAEP, contact:

Gary Phillips
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

1987 High School Transcript Study

Transcripts of 1987 high school graduates were compared with transcripts of 1982 graduates to describe changes in course taking across this 5-year period. The analyses were based on approximately 22,700 transcripts of 1987 graduates obtained as part of the 1987 High School Transcript Study and 12,000 transcripts of 1982 graduates who participated in the High School and Beyond (HS&B) project. A brief description of each study is provided below.

The sample of schools for the 1987 High School Transcript Study (conducted by Westat, Inc., for the U.S. Department of Education, National Center for Education Statistics NCES) consisted of a nationally representative sample of 471 eligible secondary schools selected for 1986 NAEP for grade 11/age 17 students, of which 433 schools participated.

These analyses focused on high school graduates, so only those students who had graduated from high school were included—from the 1987 High School Transcript Study as well as from High School and Beyond. Transcript Study graduates were

restricted to those who were in grade 11 in 1985–86. Further, because the methods of identifying and defining handicapped students were different in the two studies, and in order to make the two samples as comparable as possible, it was necessary to restrict the samples to those students whose records indicated they had not participated in a special education program.

In 1982, high school transcripts were collected for members of the HS&B study's sophomore cohort who were selected to be in the second follow-up survey (about 12,000 transcripts). As in the 1987 High School Transcript Study, records were obtained from all types of high schools, public and private. Information from the transcripts, including specific courses taken, and grades and credits earned, were coded according to the CSSC coding system and were processed into a system of data files designed to be merged with HS&B questionnaire and test data files. Unlike the 1987 High School Transcript Study, some information was not coded, such as the identification of courses as remedial, regular, or advanced, as offered in a different location, or as designed for handicapped students. The data in both sets are subject to sampling and coding (nonsampling) errors.

Further information on this survey may be obtained from:

Andrew Kolstad
Education Assessment Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5653

Projections of Education Statistics

Since 1964, NCES has published *Projections of Education Statistics*, projecting for elementary and secondary schools and institutions of higher education key statistics including enrollments, instructional staff, graduates, and earned degrees. *Projections* includes several alternative projection series and a methodology section describing the techniques and assumptions used to prepare them. Data in this edition of *The Condition of Education* reflect the intermediate *Projection* series only.

Differences between the reported and projected values are, of course, almost inevitable. An evaluation of past projections revealed that, at the elementary and secondary level, projections of enrollment have been quite accurate: mean absolute percentage differences for enrollment were less than 1 percent for projections from 1 to 5 years into the future, while those for teachers were less than 4 percent. At the higher education level, projections of enrollment have been fairly accurate:

mean absolute percentage differences were 5 percent or less for projections from 1 to 5 years into the future.

Since projections of time series are subject to errors both by the nature of statistics and the properties of projection methodologies, users are cautioned not to place too much confidence in the numerical values of the projections. Important but unforeseeable economic and social changes may lead to differences, particularly at the higher education level. Rather, projections are to be considered as indicators of broad trends.

For further information about projection methodology and accuracy, contact:

Debra E. Gerald
Statistical Standards and Methodology Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, DC 20208-5650

National Education Longitudinal Study of 1988

The National Educational Longitudinal Study of 1988 (NELS:88) is the third major longitudinal study sponsored by the National Center for Education Statistics. The two studies that preceded NELS:88, the National Longitudinal Study of the High School Class of 1972 (NLS-72), and High School and Beyond (HS&B) surveyed high school seniors (and sophomores in HS&B), through high school, postsecondary education, and work and family formation experiences. Unlike its predecessors, though, NELS:88 begins with a cohort of eighth grade students. In 1988, some 26,000 eighth graders, their parents, their teachers, and their school principals were surveyed. The first follow-up revisited the same sample of students in 1990, when they were in the tenth grade.

NELS:88 is designed to provide trend data about critical transitions experienced by young people as they develop, attend school, and embark on their careers. It complements and strengthens state and local efforts by furnishing new information on how school policies, teacher practices, and family involvement affect student educational outcomes (i.e., academic achievement, persistence in school, and participation in postsecondary education). For the base-year, NELS:88 is a multi-faceted study questionnaire and four cognitive tests, a parent questionnaire, a teacher questionnaire, and a school questionnaire.

Designed to insure that private schools, rural schools, and schools with high minority membership were adequately represented, sampling was first conducted at the school level and then at the student level within schools. Additionally, oversamples of students with Hispanic and Asian or Pacific Island heritage were drawn. The data represented in this edition of the *Condition* are drawn from a nationally representative sample of 1,000 schools (800 public schools; and 200 private schools, including parochial institutions). Within this school sample, 26,000 eighth grade students were selected at random. Follow-ups to this survey are to be conducted every two years.

For more information on this survey, contact:

Jeffrey Owings
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, D.C. 20208-5653

Schools and Staffing Survey:

Information on the school work force and teacher supply and demand are fundamental features of America's public and private school landscape. Yet, until recently there has been a lack of data on characteristics of our children's teachers and administrators and their workplace conditions. The Schools and Staffing Survey (SASS) has been designed tc meet this need. It is a comprehensive public and private education database that combines and expands three separate surveys NCES has conducted in the past. These include surveys of teacher demand and shortage, surveys of public and private schools, and of public and private school teachers. The school administrator survey is a new addition to the NCES database.

Schools were the primary sampling unit for SASS, and a sample of teachers was selected in each school; public school districts were included in the sample when one or more of their schools was selected. The 1987-88 SASS included approximately 12,800 schools (9,300 public and 3,500 private), 65,000 teachers (52,000 public and 13,000 private), and 5,600 public school districts. The survey was conducted by mail with telephone follow-ups.

The SASS sample has been designed to support the following types of estimates and comparisons: national and State estimates for public schools and teachers; estimates for private schools and teachers at the national level and for selected orientation groupings; national comparisons of elementary, secondary, and combined

schools and teachers. SASS was first conducted in the 1987–1988 school year, and will be conducted again in 1991, and at two year intervals thereafter.

Another component of (SASS) is the Teacher Follow up Survey (TFS). It consists of a subsample of SASS, and is implemented one year after the base year SASS. The survey identifies and collects data from three groups of teachers who were interviewed the previous year: A) those persons who remain in the teaching profession, including those who remain in the same school, as well as those who have moved; and B) those persons who have left the teaching profession. These data will be used to provide information about teacher attrition and retention in the public and private schools and to project teacher demand during the 1990s.

Further information on this survey may be obtained from:

Sharon Bobbitt
Elementary and Secondary Education Division
National Center for Education Statistics
555 New Jersey Avenue NW
Washington, D.C. 20208-5653

National Institute on Drug Abuse
U.S. Department of Health and Human Services

The National Institute on Drug Abuse is the primary supporter of the long-term study entitled "Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth," conducted at the University of Michigan, Institute for Social Research. One component of the study deals with student drug abuse. Results of a national sample survey have been published annually since 1975. Approximately 125 to 135 schools have participated each year. With the exception of 1975 when about 9,400 students participated in the survey, more than 15,000 students have participated in the survey annually. For the class of 1987, about 16,300 students responded to the survey. Over the years, the response rate has varied from 77 to 84 percent.

The data in this survey represent only high school seniors. Understandably, there will be some reluctance to admit illegal activities. Also, students who were out of school on the day of the survey were nonrespondents. The survey did not include high school dropouts. The inclusion of these two groups would tend to increase the proportion of individuals who had used drugs. A 1983 study found that the inclusion of the absentees could increase some of the drug usage estimates by as much as 2.7 percent. (Details on that study and its methodology were published in *Drug Use Among American High School Students, College Students, and Other Young Adults,*

by Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman, available from the National Clearinghouse on Drug Abuse Information, 5600 Fishers Lane, Rockville, MD 20857.)

Further information on this survey may be obtained from:

National Institute on Drug Abuse
Division of Epidemiology and
Statistical Analysis
5600 Fishers Lane
Rockville, MD 20857

Office for Civil Rights
U.S. Department of Education

The Office for Civil Rights (OCR) in the U.S. Department of Education conducts periodic surveys of elementary and secondary schools to obtain data on the characteristics of students enrolled in public schools throughout the Nation. Racial/ethnic status, gender, limited English proficiency, and handicapping conditions are among the characteristics covered by recent surveys. Such information is required by OCR to fulfill its responsibilities under Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and section 504 of the Rehabilitation Act of 1973. The 1976 survey was a complete census of public school districts in the Nation. The 1984 and 1986 surveys were based on samples. The universe, from which the districts were to be sampled, was defined to be all public schools in the nation (50 states and the District of Columbia). A universe file maintained by the National Center for Education Statistics from its Common Core of Data was used. The selection factors used in selecting the sample were: (1) minimum percent coverage of a specific population variable, and (2) maximum percent standard deviation of a projection of a population variable from the sample to the universe total.

Stratification also included district size and State. The 1984 survey was a stratified random sample of approximately 3,500 school districts, representing approximately 34,000 schools. For 1986, the sample included 3,455 districts, containing 37,313 schools. Both the 1984 and 1986 surveys are subject to sampling and nonsampling errors.

For further information about these surveys contact

Survey Branch
Office for Civil Rights
Lawrence Bussey
Room 5525, Switzer Building
330 C Street, S.W.
Washington, DC 20202

Office of Special Education and Rehabilitative Services
U.S. Department of Education

Annual Report to Congress on the Implementation of the Education of the Handicapped Act

The Education of the Handicapped Act (EHA) requires the Secretary of Education to transmit to Congress annually a report describing the progress in serving the Nation's handicapped children. The annual report contains information on such children served by the public schools under the provisions of Part B of the EHA and for children served in State-operated programs (SOP) for the handicapped under Chapter I of the Education Consolidation and Improvement Act (ECIA). Statistics on children receiving special education and related services in various settings and school personnel providing such services are reported in an annual submission of data to the Office of Special Education and Rehabilitative Services (OSERS) by the 50 States, the District of Columbia, and the outlying areas. The child count information is based on the number of handicapped children receiving special education and related services on December 1st of each year for EHA and October 1st for Chapter I of ECIA/SOP.

Since each participant in programs for the handicapped is reported to OSERS, the data are not subject to sampling error. However, nonsampling error can occur from a variety of sources. Some States follow a noncategorical approach to the delivery of special education services but produce counts by handicapping condition only because EHA-B requires it. In those States that do categorize their handicapped students, definitions and labeling practices vary. In each case, even though States must use the Federal definitions of the handicapping categories for reporting purposes, there is no way to judge the accuracy of these States' relabeling of their students for the Federal count. Some States also have reported combined counts for some of the smaller categories of handicap.

These variations in labeling practices may help explain why there have been inconsistencies both year to year within a given State and from State to State in the ways in which students with more than one handicapping condition have been

categorized. However, Federal and State efforts to ensure that children are being classified and reported appropriately and efforts to achieve greater consistency in classification and reporting among States help minimize these variations.

Further information on the Annual Report to Congress may be obtained from:

Lou Danielson
Office of Special Education and
Rehabilitative Services
Office of Special Education Programs
Room 3523, Switzer Building
330 C Street SW
Washington, DC 20202

2. Private Research and Professional Associations

American College Testing Program

The American College Testing (ACT) Assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT Assessment is taken by college-bound high school students and the test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10 percent sample of the students taking the test. Since then, national norms have been based on the test scores of all students taking the test. Moreover, beginning with 1984–85 these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year. Duplicate test records are no longer used to produce national figures.

Separate ACT standard scores are computed for English, mathematics, social studies, and natural science. ACT standard scores are reported for each subject area on a scale from 1 to 36. The four ACT standard scores have a mean (average) of about 19 and a standard deviation of about 6 for college-bound students nationally. A composite score is obtained by taking the simple average of the four standard scores and is an indication of student's overall academic development across these subject areas.

It should be noted that college-bound students who take the ACT Assessment are not representative in some respects of college-bound students nationally. First,

students who live in the Midwest, Rocky Mountains and Plains, and the South are overrepresented among ACT-tested students as compared with college-bound students nationally. Second, ACT-tested students tend to enroll in public colleges and universities more frequently than do college-bound students nationally.

For further information, contact:

The American College Testing Program
2201 North Dodge Street
P.O. Box 168
Iowa City, IA 52243

College Entrance Examination Board

The Admissions Testing Program of the College Board comprises a number of college admissions tests, including the Preliminary Scholastic Aptitude Test (PSAT) and the Scholastic Aptitude Test (SAT). High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report subscores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally since the sample is self-selected. Generally tests are taken by students who need the results to attend a particular college or university. The State totals are greatly affected by the requirements of its State colleges. Public colleges in a number of States require ACT scores rather than SAT scores. Thus the proportion of students taking the SAT in these States is very low and is inappropriate for any comparison. In recent years about 1 million high school students have taken the examination annually.

Further information on the SAT can be obtained from:

College Entrance Examination Board
Educational Testing Service
Princeton, New Jersey 08541

Council of Chief State School Officers (CCSSO)

1988 Policies and Practices Questionnaire

Annually the CCSSO surveys each of the Chief State School Officers to obtain information about current education practices and policies. Among these are questions relating to current State requirements for graduation and testing requirements for admission to teacher preparation programs and for certification. After these questionnaires are returned to the CCSSO staff, the responses are tabulated and the tabulated material is returned to the individual States for checking. This is done at least twice. Therefore, the data are not subject to sampling error, but there is the small possibility that an individual may have overlooked some State policy or practice.

For further information on this survey contact:

Dr. Ramsay Selden
Council of Chief State School Officers
440 North Capitol Street
Washington, DC 20001

Education Commission of the States

The Education Commission of the States (ECS) Clearinghouse researches and collects data on laws and standards in the field of education and reports them periodically in "Clearinghouse Notes." They collect information about administrators, principals, and teachers. They also examine policy areas, such as assessment and testing, collective bargaining, early childhood issues, quality education, and school schedules. The information is collected by reading State newsletters, tracking State legislation, and surveying the State Education Agencies. Data are verified by the individual States when necessary. Even though ECS monitors State activity on a continuous basis, they update the data only when there is significant change in State activity.

Further information is available from:

Melody Bush or Chris Pipho
Education Commission of the States
1860 Lincoln Street, Suite 300
Denver, CO 80295

Gallup Poll

Each year the Gallup Poll conducts the "Public Attitudes Toward the Public Schools" survey, funded by Phi Delta Kappa. The survey includes interviews with approximately 1,600 adults representing the civilian noninstitutional population 18 years old and over.

The sample used in the 19th annual survey was made up of a total of 1,571 respondents and is described as a modified probability sample of the Nation. Personal, in-home interviewing was conducted in representative areas of the Nation and types of communities. Approximately 69 percent of the respondents had no children in school, 27 percent were parents of children in public schools, and 6 percent had children attending nonpublic schools. This total is greater than 100 percent because some parents had children attending both public and nonpublic schools.

The survey is a sample survey and is subject to sampling error. The size of error depends largely on the number of respondents providing data. For example, an estimated percentage of about 10 percent based on the responses of 1,000 sample members has an approximate sampling error of 2 percent at the 95 percent confidence level. The sampling error for the difference in two percentages (50 percent versus 41 percent) based on two samples of 750 members and 400 members, respectively, is about 8 percent.

Further information on this survey can be obtained from:

Gallup Poll
Phi Delta Kappa
P.O. Box 789
Bloomington, IN 47402-0789

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports revenues and expenditure data in its annual publication, *Estimates of School Statistics*. Each year NEA prepares regression-based estimates of financial and other education statistics and submits them to the States for verification. Generally about 30 States adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously

submitted data as final figures become available. The most recent publication contains all changes reported to the NEA.

Some tables in *The Condition of Education* use revised estimates of financial data prepared by NEA because it was the most current source. Since expenditure data reported to NCES must be certified for use in Department of Education formula grant programs (such as Chapter I of the Education Consolidation and Improvement Act), NCES data are not available as soon as NEA estimates.

Further information can be obtained from:

National Education Association—Research
1201 16th Street NW
Washington, DC 20036

Agriculture: Courses designed to improve competencies in agricultural occupations. Included is the study of agricultural production, supplies, mechanization and products, agricultural science, forestry, and related services.

Appropriation (institutional revenues): An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Associate degree: A degree granted for the successful completion of a sub-baccalaureate program of studies, usually requiring at least 2 years (or equivalent) of full-time, college-level study. This includes degrees granted in a cooperative or work/study program.

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Business and management: Instructional programs that describe the processes of purchasing, selling, producing, and interchanging of goods, commodities, and services in profit-making and nonprofit public and private institutions and agencies.

Carnegie unit: A standard of measurement that represents one credit for the completion of a 1-year course.

Catholic school: (See Orientation)

Class size: The membership of a class at a given date.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth.

Combined elementary and secondary school: A school which encompasses instruction at both the elementary and the secondary levels. Examples of combined

elementary and secondary school grade spans would be 1 through 12 or 5 through 12.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer price index (CPI): This price index measures the average change in the cost of a fixed market basket of goods and services purchased by consumers.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): The expenditures for operating local public schools excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs. Beginning in 1980–81, expenditures for State administration are excluded.

Current expenditures per pupil in average daily attendance: Current expenditures for the regular school term divided by the average daily attendance of full-time pupils (or full-time equivalency of pupils) during the term. See also Current expenditures and Average daily attendance.

Educational attainment: The highest grade of regular school attended and completed.

Elementary school: A school classified as elementary by State and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary/secondary school: As reported in this publication, includes only regular school, i.e., schools that are part of State and local school systems, and also most not-for-profit private elementary/secondary schools, both religiously affiliated and nonsectarian. Schools not reported include subcollegiate departments of institutions of higher education, residential schools for exceptional children, Federal schools for Indians, and Federal schools on military posts and other Federal installations.

English: A group of instructional programs that describes the English language arts, including composition, creative writing, and the study of literature.

Enrollment: The total nurnber of students registered in a given school unit at a given time, generally in the fall of a year.

Expenditures: Charges incurred, whether paid or unpaid, which are presumed to benefit the current fiscal year. For elementary/secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, extension of credit, or as agency transaction. Government expenditures include only external transactions, such as the provision of perquisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions among the governments.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as average daily attendance or average daily membership.

Fiscal year: The yearly accounting period for the Federal Government, which begir ; on October 1 and ends on the following September 30. The fiscal year is designated by the calendar year in which it ends; e.g., fiscal year 1988 begins on October 1, 1987, and ends on September 30, 1988. (From fiscal year 1844 to fiscal year 1976 the fiscal year began on July 1 and ended on the following June 30.)

Foreign languages: A group of instructional programs that describes the structure and use of language that is common or indigenous to people of the same community or nation, the same geographical area, or the same cultural traditions. Programs cover such features as sound, literature, syntax, phonology, semantics, sentences, prose, and verse, as well as the development of skills and attitudes used in communicating and evaluating thoughts and feelings through oral and written language.

Full-time worker: In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session. For higher education, a member of an educational institution's staff who is employed full time.

General program: A program of studies designed to prepare students for the common activities of a citizen, family member, and worker. A general program of studies may include instruction in both academic and vocational areas.

Geographic region: One of four regions used by the Bureau of the Economic Analysis of the U.S. Department of Commerce, the National Assessment of Educational Progress, and the National Education Association, as follows: (The National Education Association designated the Central region as Middle region in its classification.)

Northeast	Southeast
Connecticut	Alabama
Delaware	Arkansas
District of Columbia	Florida
Maine	Georgia
Maryland	Kentucky
Massachusetts	Louisiana
New Hampshire	Mississippi
New Jersey	North Carolina
New York	South Carolina
Pennsylvania	Tennessee
Rhode Island	Virginia
Vermont	West Virginia
Central (Middle)	**West**
Illinois	Alaska
Indiana	Arizona
Iowa	California
Kansas	Colorado
Michigan	Hawaii
Minnesota	Idaho
Missouri	Montana
Nebraska	Nevada
North Dakota	New Mexico
Ohio	Oklahoma
South Dakota	Oregon
Wisconsin	Texas
	Utah
	Washington
	Wyoming

Government appropriation: An amount (other than a grant or contract) received from or made available to an institution through an act of a legislative body.

Government grant or contract: Revenues from a government agency for a specific research project or other program.

Gross national product (GNP): The total national output of goods and services valued at market prices. GNP can be viewed in terms of expenditure categories which include purchases of goods and services by consumers and government, gross private domestic investment, and net exports of goods and services. The goods and services included are largely those bought for final use (excluding illegal transactions) in the market economy. A number of inclusions, however, represent imputed values, the most important of which is rental value of owner-occupied housing. GNP, in this broad context, measures the output attributable to the factors of production—labor and property—supplied by U.S. residents.

Handicapped: Those children evaluated by the States as having any of the following impairments, who because of these impairments need special education and related services. (These definitions apply specifically to data from the U.S. Office of Special Education and Rehabilitative Services presented in this publication.)

Deaf. Having a hearing impairment which is so severe that the student is impaired in processing linguistic information through hearing (with or without amplification) and which adversely affects educational performance.

Deaf-blind: Having concomitant hearing and visual impairments which cause such severe communication and other developmental and educational problems that the student cannot be accommodated in special education programs solely for deaf or blind students.

Hard of hearing: Having a hearing impairment, whether permanent or fluctuating, which adversely affects the student's educational performance but which is not included under the definition of "deaf" in this section.

Mentally retarded: Having significantly subaverage general intellectual functioning, existing concurrently with defects in adaptive behavior and manifested during the developmental period, which adversely affects the child's educational performance.

Multihandicapped: Having concomitant impairments (such as mentally retarded-blind, mentally retarded-orthopedically impaired, etc.), the combination of which causes such severe educational problems that the student cannot be accommodated in special education programs solely for one of the impairments. Term does not include deaf-blind students but does include those students who are severely or profoundly mentally retarded.

Orthopedically impaired: Having a severe orthopedic impairment which adversely affects a student's educational performance. The term includes impairment resulting from congenital anomaly, disease, or other causes.

Other health impaired: Having limited strength, vitality, or alertness—due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes—which adversely affects the student's educational performance.

Seriously emotionally disturbed: Exhibiting one or more of the following characteristics over a long period of time, to a marked degree, and adversely affecting educational performance: an inability to learn which cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms or fears associated with personal or school problems. This term does not include children who are socially maladjusted, unless they also display one or more of the listed characteristics.

Specific learning disabled: Having a disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. The term includes such conditions as perceptual
handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental asphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or environmental, cultural, or economic disadvantage.

Speech impaired: Having a communication disorder, such as stuttering, impaired articulation, language impairment, or voice impairment, which adversely affects the student's educational performance.

Visually handicapped: Having a visual impairment which, even with correction, adversely affects the student's educational performance. The term includes partially seeing and blind children.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, 12 (in a 6-3-3 plan) or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

High school program: A program of studies designed to prepare students for their postsecondary education and occupation. Three types of programs are usually distinguished—academic, vocational, and general. An academic program is designed to prepare students for continued study at a college or university. A vocational program is designed to prepare students for employment in one or more semiskilled, skilled, or technical occupations. A general program is designed to provide students with the understanding and competence to function effectively in a free society and usually represents a mixture of academic and vocational components.

Inflation: An upward movement in general price levels that results in a decline of purchasing power.

Instructional staff: Full-time-equivalent number of positions, not the number of different individuals occupying the positions during the school year. In local schools includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or in the improvement of the teaching-learning situation. Includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. Excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

Junior high school: A separately organized and administered secondary school intermediate between the elementary and senior high schools, usually including grades 7, 8, and 9 (in a 6-3-3 plan) or grades 7 and 8 (in a 6-2-4 plan).

Labor force: Persons employed as civilians, unemployed, or in the armed services during the survey week. The "civilian labor force" comprises all civilians classified as employed or unemployed.

Local education agency: See **School district**.

Mathematics: A group of instructional programs that describes the science of logical symbolic language and its application.

Metropolitan population: The population residing in Metropolitan Statistical Areas (MSA's). See **Metropolitan Statistical Area**.

Metropolitan Statistical Area (MSA): A large population nucleus and the nearby communities which have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and

metropolitan character. In New England, towns and cities, rather than counties, are the basic units. MSA's are designated by the Office of Management and Budget. An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. A MSA also includes such additional outlying counties which meet specified criteria relating to metropolitan character and level of commuting of workers into the central city or counties. Specified criteria governing the definition of MSA's recognized before 1980 are published in **Standard Metropolitan Statistical Areas: 1975**, issued by the Office of Management and Budget.

New MSA's were designated when 1980 counts showed that they met one or both of the following criteria:

- Included a city with a population of at least 50,000 within their corporate limits, or
- Included a Census Bureau-defined urbanized area (which must have a population of at least 50,000) and a total MSA population of at least 100,000 (or, in New England, 75,000).

Minimum-competency testing: Measuring the acquisition of competence or skills to or beyond a certain specified standard.

Nonmetropolitan residence group: The population residing outside Metropolitan Statistical Areas. See **Metropolitan Statistical Area**.

Nonresident alien: A person who is not a citizen of the United States and who is in this country on a temporary basis and does not have the right to remain indefinitely.

Nonsupervisory instructional staff: Persons such as curriculum specialists, counselors, librarians, remedial specialists, and others possessing education certification but not responsible for day-to-day teaching of the same group of pupils.

Orientation (private school): The group or groups, if any, with which a private elementary/secondary school is affiliated, or from which it derives subsidy or support:

> **Catholic school**: A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.

Other religious school: A private school affiliated with an organized religion or denomination other than Roman Catholicism or which has a religious orientation other than Catholic in its operation and curriculum.

Nonsectarian school: A private school whose curriculum and operation are independent of religious orientation and influence in all but incidental ways.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, etc., but excludes transfers among persons.

Pupil/teacher ratio: The enrollment of pupils at a given period of time, divided by the full-time-equivalent number of classroom teachers serving these pupils during the same period.

Racial/ethnic group: Classification indicating general racial or ethnic heritage based on self-identification, as in data collected by the Bureau of the Census or on observer identification, as in data collected by the Office for Civil Rights. These categories are in accordance with the Office of Management and Budget standard classification scheme presented below:

White: A person having origins in any of the original peoples of Europe, North Africa, or the Middle East. Normally excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly in this volume.

Black: A person having origins in any of the black racial groups in Africa. Normally excludes persons of Hispanic origin except for tabulations produced by the Bureau of the Census, which are noted accordingly in this volume.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Asian or Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

American Indian or Alaskan Native: A person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition.

Revenues: All funds received from external sources, net of refunds, and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded as are funds received from the issuance of debt, liquidation of investments, and nonroutine sale of property.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School district: An education agency at the local level that exists primarily to operate public schools or to contract for public school services. Synonyms are "local basic administrative unit" and "local education agency."

School year: The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 through June 30.

Science: The body of related courses concerned with knowledge of the physical and biological world and with the processes of discovering and validating this knowledge.

Secondary school: A school comprising any span of grades beginning with the next grade following an elementary or middle-school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Senior high school: A secondary school offering the final years of high school work necessary for graduation and invariably preceded by a junior high school.

Social studies: A group of instructional programs that describes the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes.

Staff assignments, elementary and secondary school:

District administrators: The chief executive officers of education agencies (such as superintendents and deputies) and all others with district-wide responsibility. Such positions may be business managers, administrative assistants, coordinators and the like.

District administrative support staff: Those personnel that are assigned to the staffs of the district administrators. They may be clerks, computers programmers and others concerned with the functioning of the entire district.

Guidance counselors: Professional staff whose activities involve counseling with students and parents, consulting with other staff members on learning problems, evaluating the abilities of students, assisting students in personal and social development, providing referral assistance, and working with other staff members in planning and conducting guidance programs for students.

Instructional (teacher) aides: Those staff members assigned to assist a teacher with routine activities associated with teaching (i.e., those activities requiring minor decisions regarding students, such as monitoring, conducting rote exercises, operating equipment, and clerking). Volunteer aides are not included in this category.

Librarians: Staff members assigned to perform professional library service activities such as selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers and other members of the instructional staff; and guiding individuals in their use of library books and materials, which are maintained separately or as part of an instructional materials center.

Other support services staff: All staff not reported in other categories. This group includes media personnel, social workers, data processors, health maintenance workers, bus drivers, security cafeteria workers, and other staff.

School administrators: Those staff members whose activities are concerned with directing and managing the operation of a particular school. They may be principals or assistant principals, including those who coordinate school instructional activities with those of the local education agency (LEA) and other appropriate units.

Vocational education: Organized educational programs, services, and activities which are directly related to the preparation of individuals for paid or unpaid

employment, or for additional preparation for a career, requiring other than a baccalaureate or advanced degree.

Vocational home economics: Vocational courses of instruction emphasizing the acquisition of competencies needed for getting and holding a job or preparing for advancement in an occupational area using home economics knowledge or skills.

Year-round, full-time worker: One who worked primarily at full-time civilian jobs for 50 weeks or more during the preceding calendar year.

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