NATIONAL CENTER FOR EDUCATION STATISTICS

the pocket condition of education

1999

U.S. Department of Education
Office of Educational Research and Improvement

NCES 2000-024

U.S. Department of Education
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The following charts are a small sample of the 60 indicators contained in ***The Condition of Education 1999.***

Since 1870, the federal government has been gathering data about students, teachers, schools, and education funding. The U.S. Department of Education's National Center for Education Statistics (NCES) annually publishes a statistical report on the status and progress of education in the United States. ***The Condition of Education*** includes data and analysis on a wide variety of issues. The indicators in the 1999 edition are in five sections:

- Learner Outcomes;
- Quality of Education Environments (Elementary/Secondary);
- Quality of Education Environments (Postsecondary);
- Social Support for Learning; and
- Educational Participation and Progress.

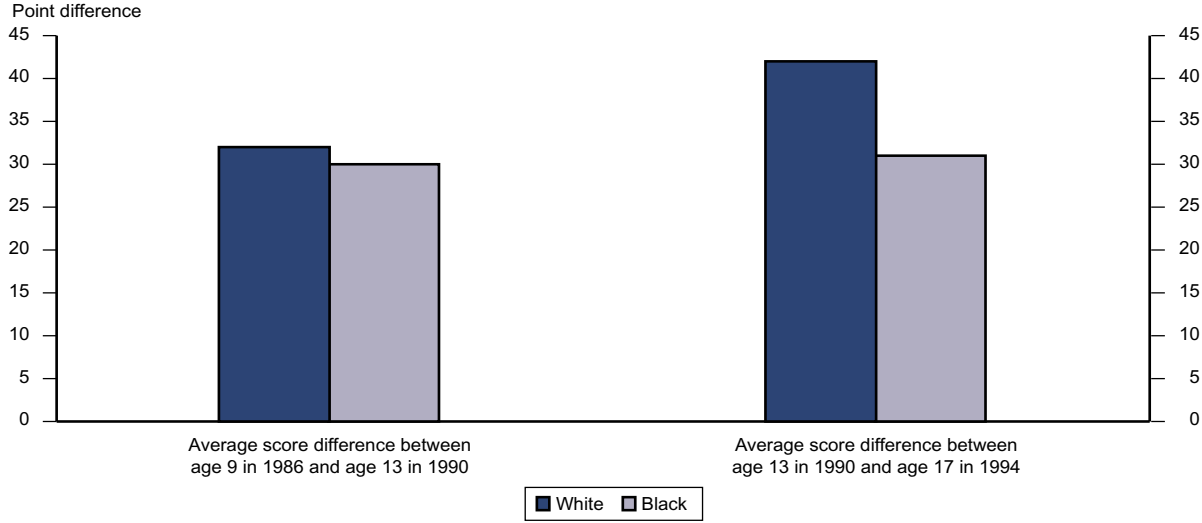
The indicators in the publication use data from government and private sources. The publication includes overviews on current topics in education and additional tables related to each indicator.

Until supplies are exhausted, a single copy of ***The Condition of Education 1999*** (NCES 1999-022) may be obtained at no cost from either the U.S. Department of Education, ED Pubs at 1-877-4ED-Pubs. If you need more than one copy of the publication or supplies have been exhausted, see the order form at the end of this document.

This report, as well as many other NCES products, are also available on the NCES Internet site at http://nces.ed.gov.

Competence in science is an important outcome of education. The ability to apply scientific information, interpret data, and make inferences about scientific findings is required in a world that relies on technological and scientific advances. Evidence shows that the difference in science performance scores between the ages of 9 and 13 is similar across racial–ethnic groups, while between the ages of 13 and 17, the change is much greater for white students than it is for black students.

Change in average science performance, by age span and race–ethnicity



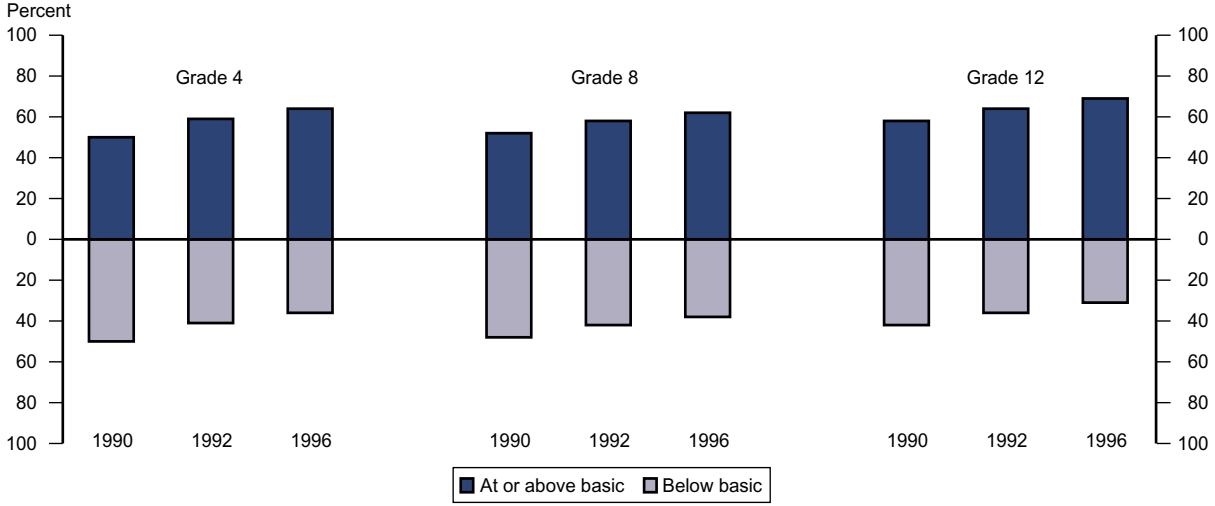
NOTE: The science performance scale has a range from 0 to 500. Data are not longitudinal.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, *NAEP 1996 Trends in Academic Progress*, revised 1998.

2 Mathematics performance of 4th-, 8th-, and 12th-grade students

For the past 25 years, the National Assessment of Educational Progress (NAEP) has assessed student performance in mathematics. A new NAEP framework has evolved due to advances in assessment methodology and changes in curricular and educational approaches in mathematics. This new framework reflects the National Council of Teachers of Mathematics Curriculum and Evaluation Standards for School Mathematics. Overall, average mathematics performance scores improved between 1990 and 1996 for all students in grades 4, 8, and 12. Average scores for white students have remained higher than those for black and Hispanic students at all three grade levels; the gaps in scores between black or Hispanic and white students also remained similar between 1990 and 1996.

Percentage distribution, by mathematics achievement level: 1990, 1992, and 1996

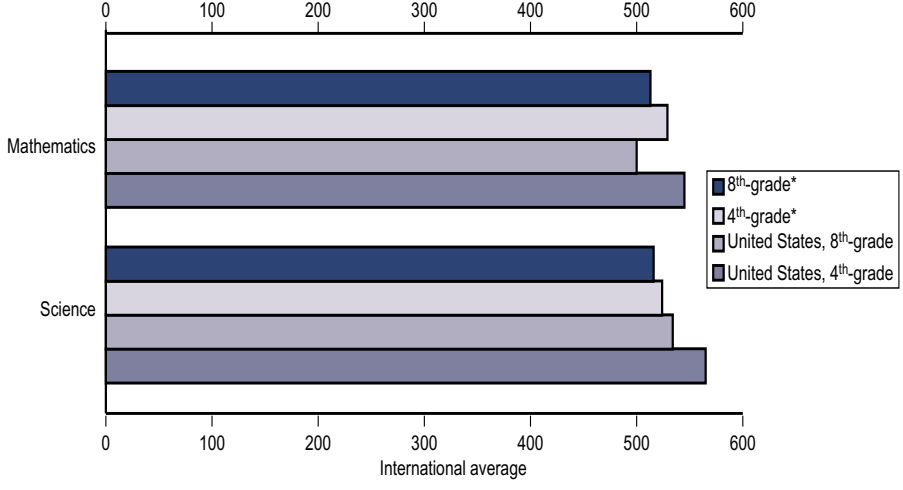


NOTE: The mathematics performance scale has a range of 0 to 500.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1996 Mathematics Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress,* 1997.

The technical and scientific skills of a nation's work force are a significant component of its economic competitiveness. The Third International Mathematics and Science Study (TIMSS) assessed the mathematics and science performance of students around the world. By comparing the mathematics and science achievement of students around the world, it is possible to estimate the scientific and technical skills of the United States at the beginning of the millenium. Fourth-graders in the United States outperformed students in the 26-nation average in both mathematics and science. Eighth-graders in the United States scored above the 41-nation average in science and below the average in mathematics. Compared with students in their final year of secondary school, U. S. 12th-graders scored below the 21-nation average in both mathematics and science.

International average mathematics and science achievement scores, by grade: 1995



* Fourth or 8th grade in most nations.

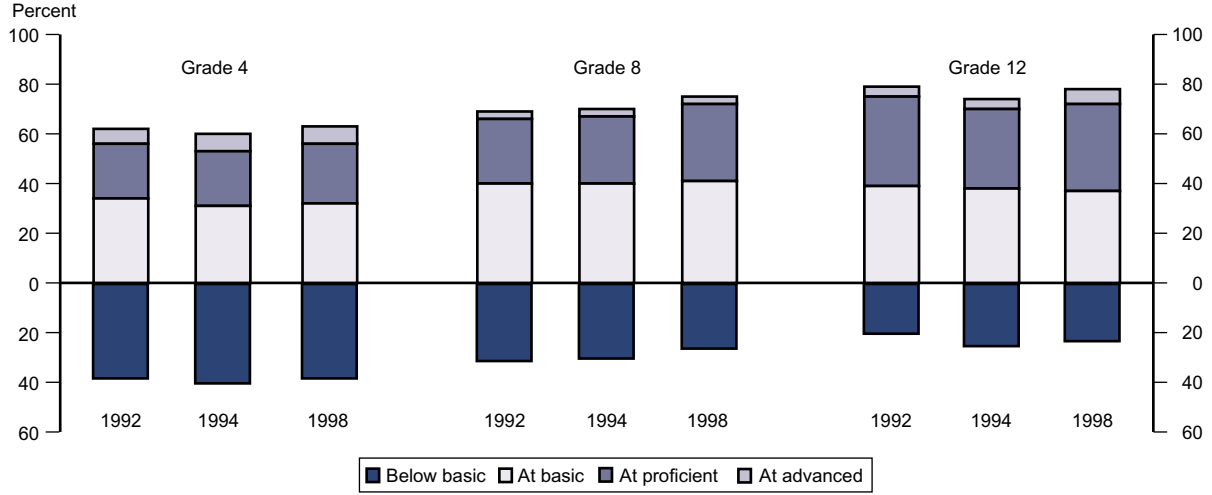
NOTE: Only 26 nations participated at the 4th-grade level of the 41 nations participating at the 8th-grade level.

SOURCE: International Association for the Evaluation of Educational Achievement, TIMSS International Study Center, *Mathematics Achievement in the Primary School Years, Science Achievement in the Primary School Years, IEA's Third International Mathematics and Science Study*, 1997; *Mathematics Achievement in the Middle School Years, Science Achievement in the Middle School Years, IEA's Third International Mathematics and Science Study*, 1996.

4 Reading performance of 4th-, 8th-, and 12th-grade students

Since the early 1970s, the National Assessment of Educational Progress (NAEP) has assessed long-term trends in basic reading competencies. Beginning in 1992, and continuing in 1994 and 1998, a new "main NAEP" reading assessment was administered to reflect changing instructional practices in classrooms and standards of learning based on current curriculum frameworks. Between 1992 and 1998, average reading performance scores remained relatively stable for 4th-grade students and increased slightly for 8th-grade students. The reading performance scores for 12th -grade students decreased between 1992 and 1994, but rose again in 1998. For both 8th- and 12th-grade students, the total percentage of students scoring below the basic level decreased between 1994 and 1998, while for 4th-grade students, the percentage scoring below this level remained the same.

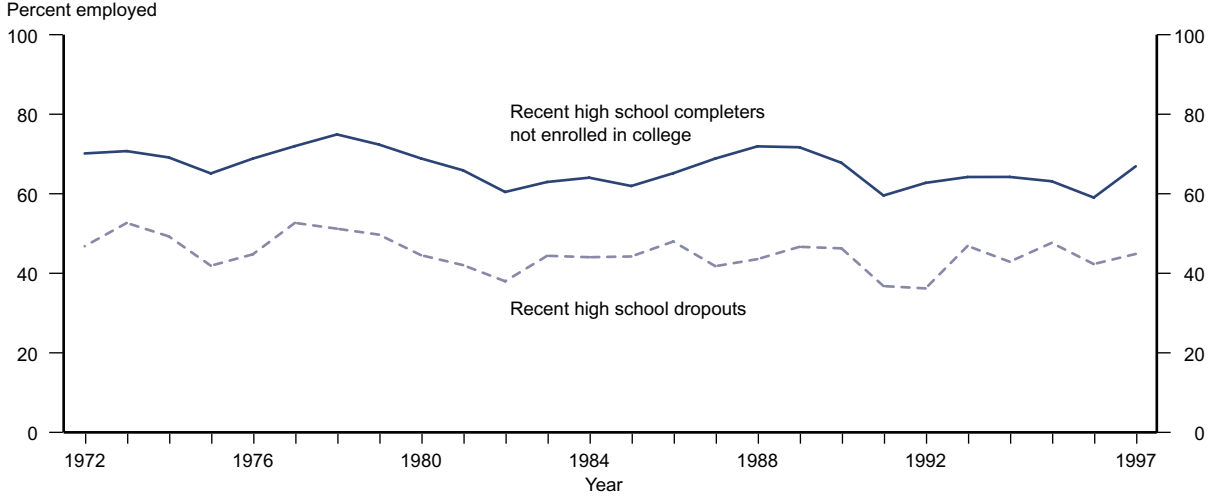
Percentage distribution of students, by grade and reading achievement level: 1992, 1994, and 1998



NOTE: The reading performance scale has a range from 0 to 500.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *NAEP 1998 Reading, A Report Card for the Nation and the States,* 1999.

The transition from high school to work can be difficult. Without prior job experience or specialized training, school leavers may have difficulty finding jobs. Comparing the employment rates of high school completers with those of dropouts indicates the employment advantage noncollege high school completers have over high school dropouts. In 1997, 67 percent of recent high school completers not enrolled in college were employed, compared with 45 percent of recent high school dropouts. Since 1972, the employment rates for both recent high school completers not enrolled in college and recent high school dropouts have declined, on average, by approximately 0.3 percentage points per year. These declines were greater for males than for females.

Employment rates for recent high school completers not enrolled in college and for recent school dropouts, by graduation status: October 1972–97



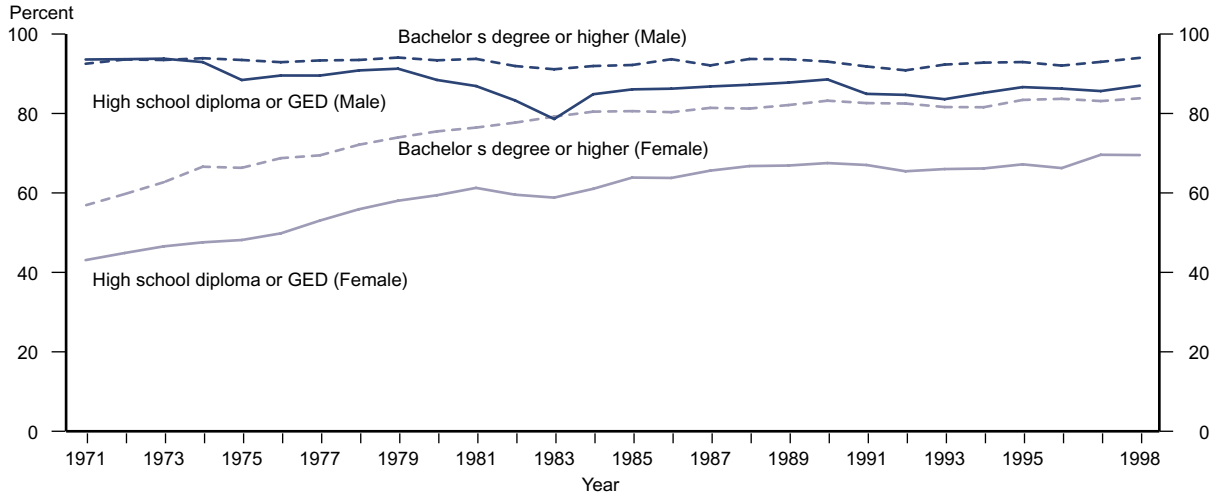
NOTE: Recent high school completers are individuals ages 16–24 who completed high school during the survey year. Recent high school dropouts are individuals ages 16–24 who had not completed high school, were not enrolled during the survey month, and were in school 12 months earlier. In 1994, the survey instrument for the CPS was changed and weights were adjusted.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

6 Employment of young adults, by educational attainment

Many factors affect employment rates among adults. Some factors influence the willingness of employers to offer jobs to individuals with different levels of education at the going wage rate, whereas others influence the willingness of individuals to take jobs at this wage rate. The percentage of young adults who are employed is an indication of both the skill levels required by employers and the advantages employment offers to individuals relative to other pursuits. The employment rate of male and female 25- to 34-year-olds was generally higher among those individuals with a higher level of education between 1971 and 1998. For example, in 1998, males and females ages 25–34 with a bachelor's degree or higher were more likely to be employed than their peers who had lower levels of educational attainment.

Employment rate of 25- to 34-year-olds, by sex and educational attainment: March 1971–98

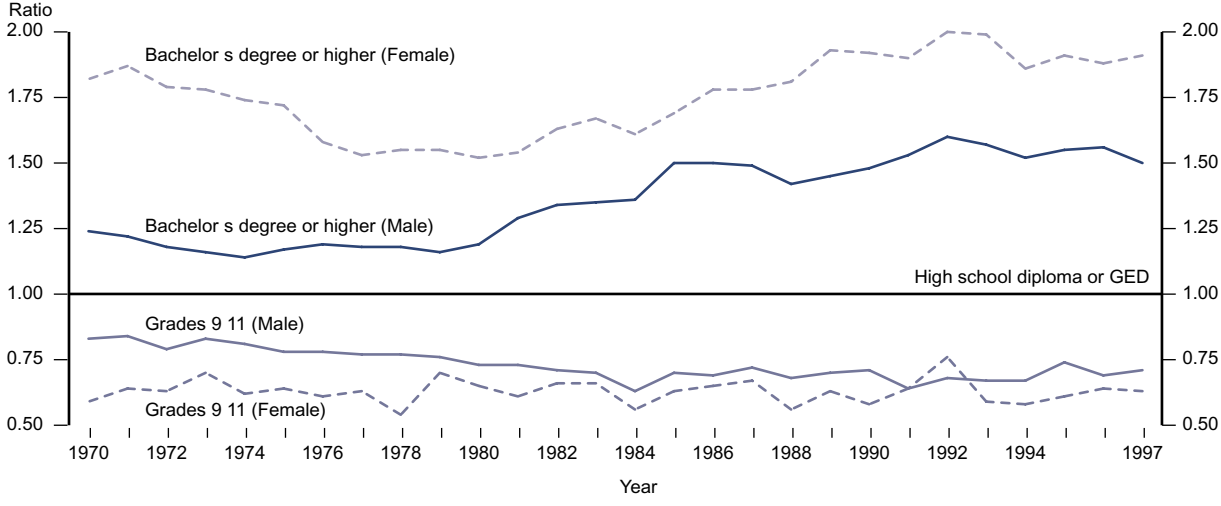


NOTE: The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. The employment rate represents the number of employed individuals as a percentage of the total population.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

The ratio of annual earnings of high school dropouts or college graduates to the annual earnings of high school completers measures the earnings disadvantage of not finishing high school and the earnings advantage of completing college. In 1997, the median annual earnings of young adults ages 25–34 who had not completed high school were substantially lower than those of their counterparts who had done so. Young adults who had completed a bachelor's degree or higher earned substantially more than those who had earned no more than a high school diploma or GED.

Ratio of median annual earnings of all wage and salary workers ages 25–34 whose highest education level was a bachelor's degree or higher, compared with those with a high school diploma or GED, by sex: 1970–97

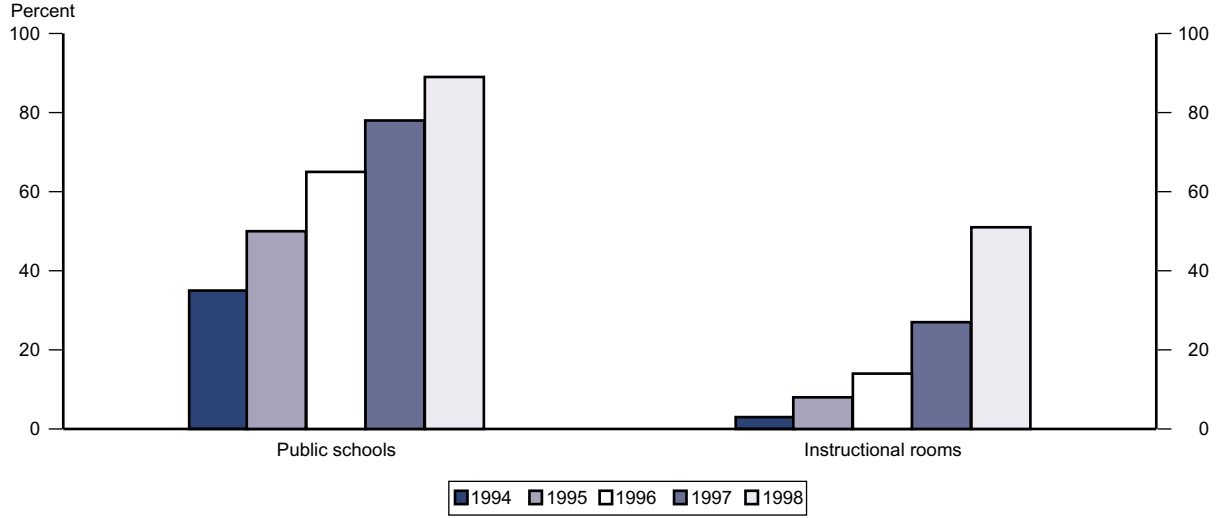


NOTE: This ratio is most useful when compared with 1.0. For example, the ratio of 1.50 in 1997 for males whose highest education level was a bachelor's degree or higher means that they earned 50 percent more than males who had a high school diploma or GED. Data for 1994, 1995, and 1996 are revised from previously published figures. The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. In 1994, the survey instrument for the CPS was changed and weights were adjusted.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Information found on the Internet can broaden students' knowledge base, and Internet access can prepare students for an increasingly technological workplace. Between fall 1994 and fall 1998, Internet access in public schools increased from 35 to 89 percent of schools. The percentage of public school instructional rooms with Internet access also increased during this time period (from 3 percent in 1994 to 51 percent in 1998).

Percentage of public schools and instructional rooms* with Internet access: Fall 1994–98

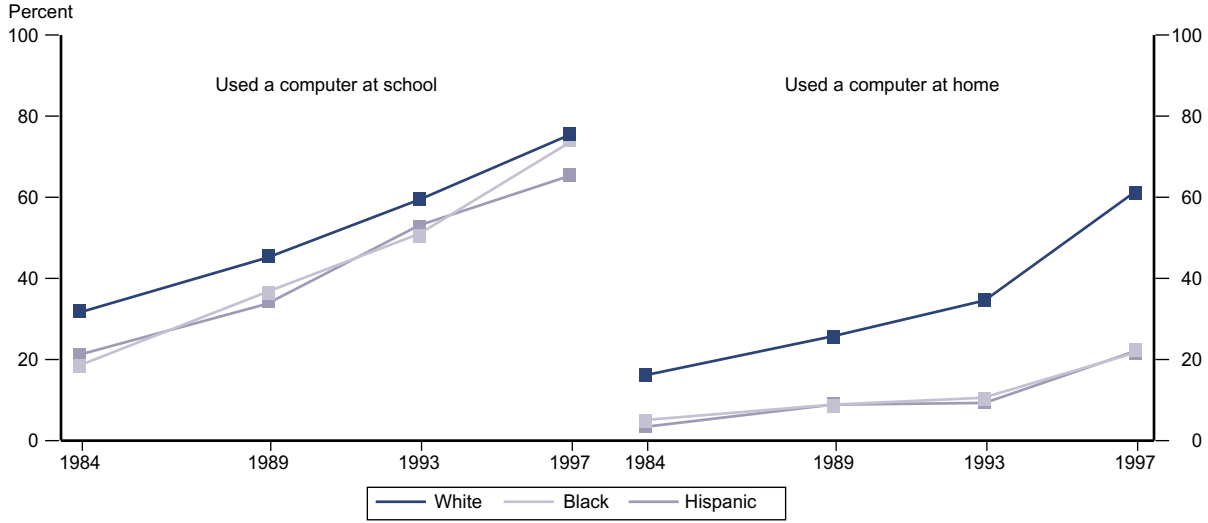


* Based on the total number of instructional rooms in regular public schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Internet Access in Public Schools," Issue Brief, February 1998, and "Internet Access in Public Schools, 1994–1998," Issue Brief, February 1999.

Early exposure to computers can help students gain the computer literacy that will be crucial for future success in the workplace. Examining the extent to which students have access to computers at home and at school may be an indicator of how well prepared students will be to enter an increasingly technological workplace. The percentage of white, black, and Hispanic students in grades 1–6 and 7–12 who used a computer at school and at home was higher in 1997 than in 1984. For example, 18 and 19 percent of black and Hispanic 1st- through 6th-graders used a computer at school in 1984, compared with 73 and 71 percent of their black and Hispanic peers, respectively, in 1997. Between 1984 and 1997, white students in grades 1–6 and 7–12 were consistently more likely than their black and Hispanic peers to use a computer at school or at home. However, when computer use by students was broken out by location of use, there was similar computer use by blacks and whites in grades 7–12 at school but not at home in 1997.

Percentage of students grades 7–12 who used a computer at school or home, by race–ethnicity: 1984, 1989, 1993, and 1997

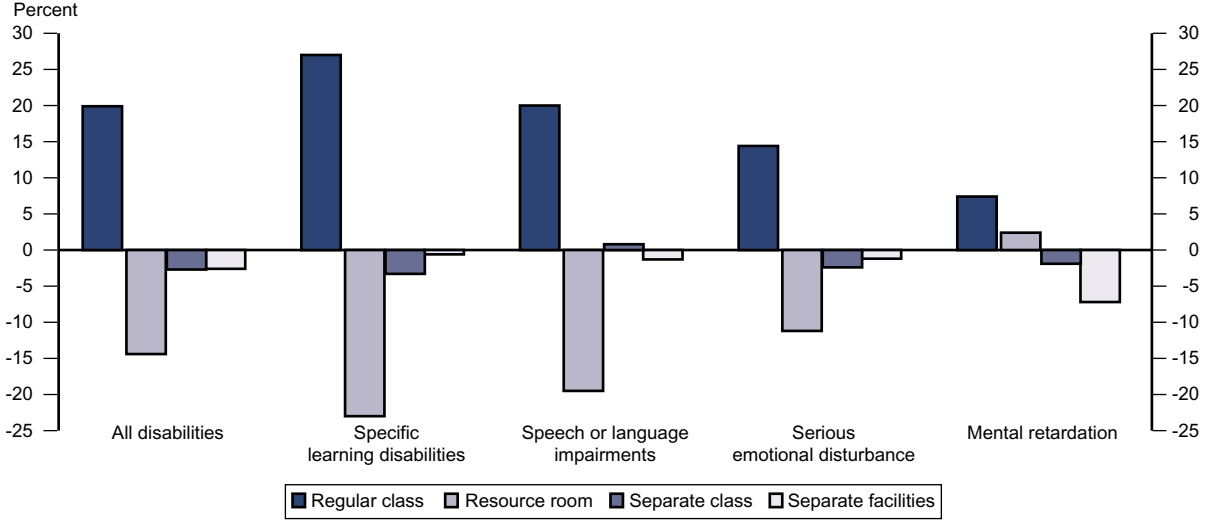


NOTE: Data for 1984, 1989, and 1993 are revised from previously published figures.
SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

10 Inclusion of students with disabilities in the least restrictive environment

The 1997 amendments to the Individuals with Disabilities Education Act (IDEA) placed renewed emphasis on educating students with disabilities in less restrictive environments. In particular, the law encourages opportunities for children with disabilities to participate in general education settings and in the general education curriculum. Between 1986 and 1996, the percentage of children ages 6–21 with disabilities who were educated in regular classrooms increased substantially. For example, the percentage served in regular classrooms increased by nearly 20 percentage points, while the percentage served in resource rooms, separate classes, and separate residential facilities decreased. There has been a general downward trend in the percentage of children with disabilities who were educated in resource rooms and separate classes, but this pattern does not hold true for children with all disability types. Among children in 8 of the 12 disability categories, where disabilities tend to be more severe, placements in either resource rooms, separate classes, or both increased between 1985–86 and 1995–96 (between 1991–92 and 1995–96 for autism and traumatic brain injury).

Percentage point change between the 1985–86 and 1995–96 academic years of students ages 6–21* with disabilities educated in various educational environments, by selected disability types

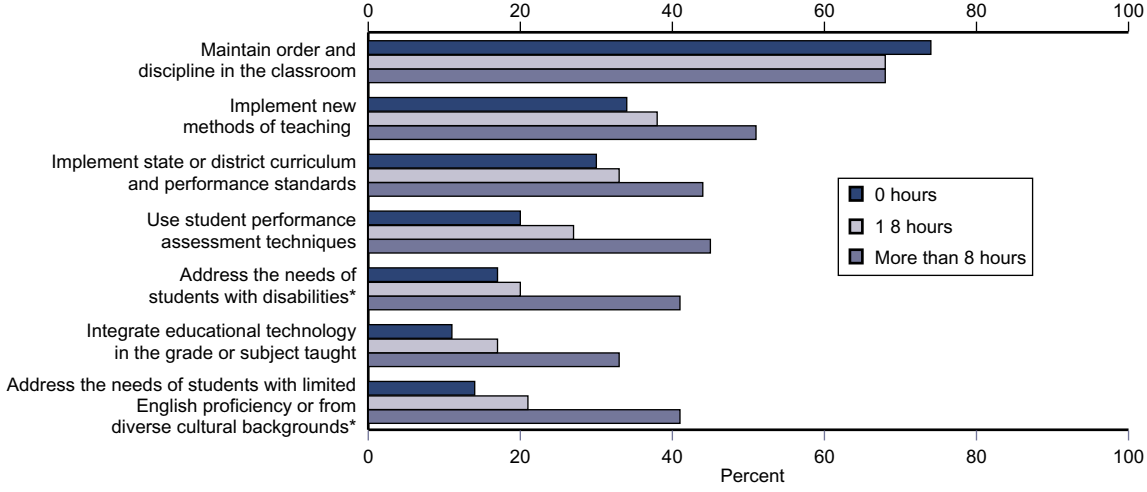


* Based on the number of students served under Part B of the Individuals with Disabilities Education Act (IDEA) in the United States and outlying areas.

SOURCE: U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*, 1988–1998.

Teachers' initial professional training may not have prepared them adequately to meet current expectations, so continuing professional development is important. Teachers' self-assessments provide one indication of the extent to which preservice and on-the-job learning prepare them to meet the new demands. Teachers who spent more than 8 hours in professional development in the content area of a specific activity in the previous 12 months were generally more likely than other teachers to feel very well prepared in that area. The exception was the area in which teachers felt most prepared: maintaining order and discipline in the classroom. Teachers were least likely to report that they felt very well prepared to integrate educational technology into their teaching methods (20 percent), or to address the needs of students with disabilities (21 percent) or of students with limited English proficiency or from diverse cultural backgrounds (20 percent).

Percentage of public school teachers who felt they were very well prepared to perform various activities in the classroom, according to the number of hours spent in professional development in that content area, in the last 12 months, by activity: 1998



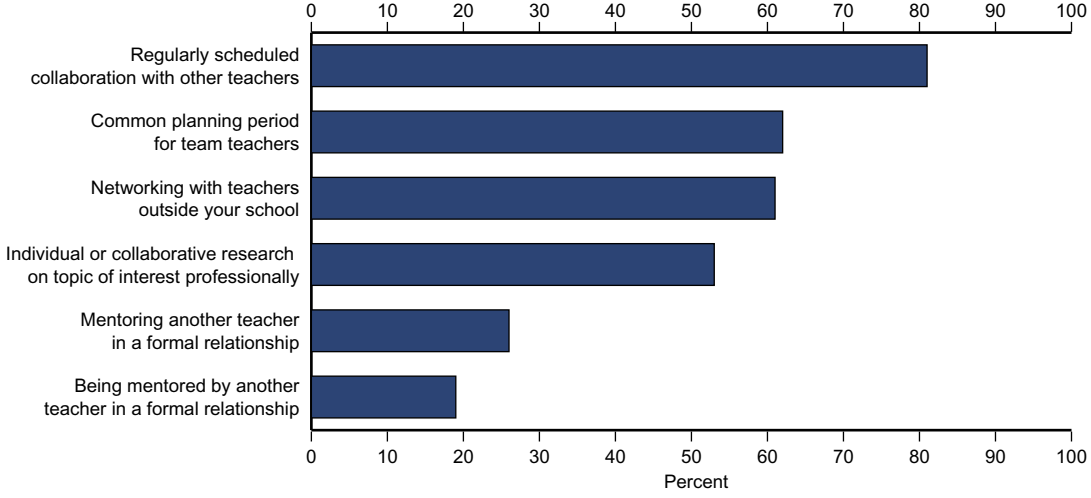
* Percentages based on teachers who teach such students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

12 Teachers' participation in collaborative activities

Teachers can improve their teaching practices by engaging in frequent and planned collaborative activities with other teachers. Such activities can include team teaching, mentoring, formal planning meetings, and research projects. In the larger teaching community, collaborative activities might include school-university partnerships, teacher networks, or task forces organized around subject matter, pedagogical issues, or school reform. In 1998, 81 percent of teachers reported participating in regularly scheduled collaboration with other teachers at least a few times in the previous 12 months. The next most common activities were engaging in a common planning period for team teachers and networking with teachers outside their school. Conducting individual or collaborative research on a topic of interest professionally was next. Teachers were least likely to have been involved in mentoring activities, either mentoring another teacher or being mentored.

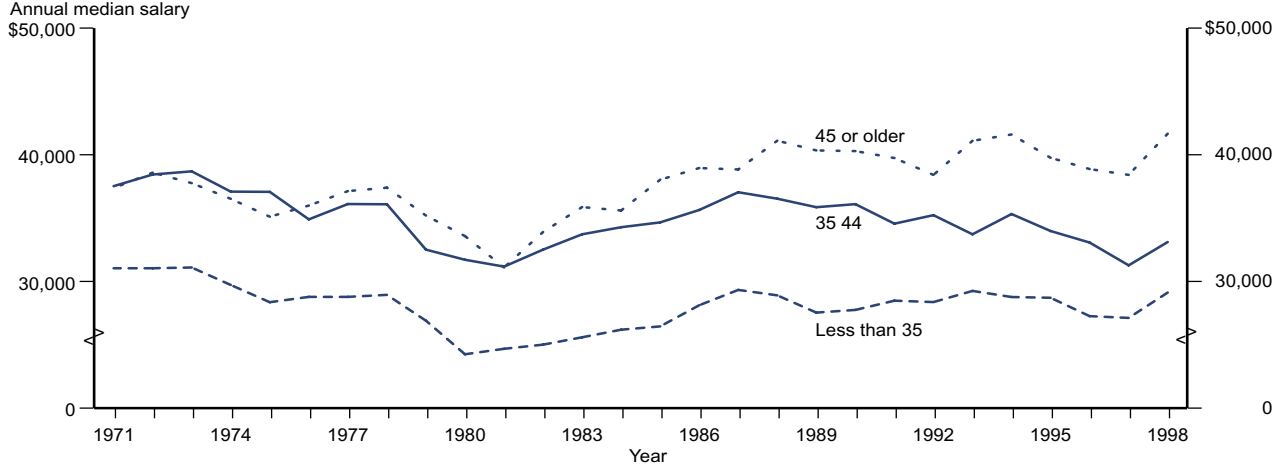
Percentage of public school teachers who had participated in various collaborative activities in the past 12 months: 1998



SOURCE: U.S. Department of Education, National Center for Education Statistics, Fast Response Survey System, Teacher Survey on Professional Development and Training, 1998.

Attracting and retaining quality teachers are becoming major concerns as school districts compete for teaching personnel to cope with rising enrollments and an aging work force of experienced teachers who are nearing retirement. The annual median salaries (in constant 1998 dollars) of full-time teachers decreased between 1971 and 1981 by about $500–700 annually in each age group. Between 1981 and 1989, the salaries of teachers rose. For the oldest group of teachers, salaries rose by about $1,100 per year, on average, while for the middle and youngest age groups, salaries increased by smaller amounts.

Annual median salaries (in constant 1998 dollars) of full-time elementary and secondary teachers, by age: 1971–98



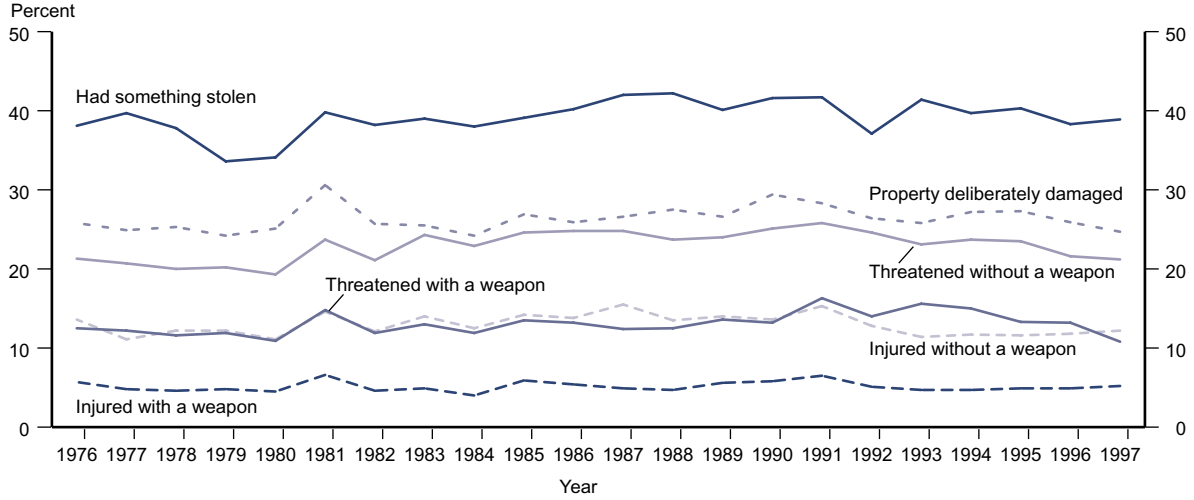
NOTE: Median salaries refer to the previous calendar year; for example, salaries reported in 1971 refer to salaries earned in 1970. The Consumer Price Index (CPI) was used to calculate constant dollars. Includes full-time public and private school teachers who taught grades 1–12.

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

14 Student victimization at school

Violence in schools makes teaching difficult and inhibits student learning. In recent years, educators, parents, and policymakers have voiced growing concern about possible increases in the incidence of school-related criminal behavior. Studying trends in victimization rates provides a picture of the safety of today's schools. Victimization rates at school for high school seniors changed little between 1976 and 1997. The most common type of victimization at school in the previous 12 months reported by high school seniors in 1997 was having something stolen (39 percent). In 1997, high school seniors from metropolitan and nonmetropolitan areas were about equally likely to report being victimized at school in the previous 12 months.

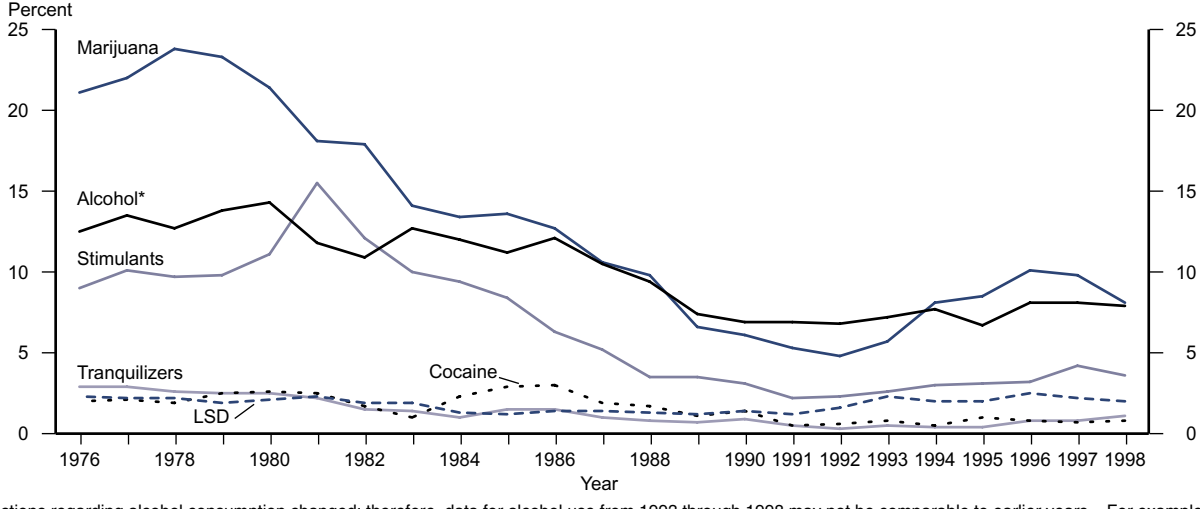
Percentage of high school seniors who reported being victimized at school during the previous 12 months, by type of victimization: 1976–97



NOTE: Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.
SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

The percentage of students who report alcohol and drug use is an indicator of a safe and effective learning environment. Therefore, it is important for educators and administrators to determine the extent of student alcohol and drug use and how this use affects the school's goal of providing a safe and effective learning environment. Between 1976 and 1998, the percentage of high school seniors who reported using alcohol, marijuana, stimulants, cocaine, or tranquilizers at school during the previous year decreased. For example, the percentage of seniors in 1998 who reported using marijuana at school during the previous year was less than half the percentage of those who reported doing so in 1976 (8 versus 21 percent). The percentage of high school seniors who reported using drugs or alcohol at any time during the previous year also decreased between 1975 and 1998. However, after reaching its lowest point in the early 1990s, drug use at any time during the previous year by high school seniors began to increase again for most drugs. For example, the percentage of seniors who reported using marijuana at any time during the previous year increased from 22 percent in 1992 to 38 percent in 1998.

Percentage of high school seniors who reported using alcohol or drugs at school during the previous year, by type of drug: 1976–98



* In 1993, the questions regarding alcohol consumption changed; therefore, data for alcohol use from 1993 through 1998 may not be comparable to earlier years. For example, in 1993, the original wording produced estimates of 26, 42, and 51 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively. The new wording produced estimates of 24, 38, and 49 percent for alcohol use of 8th-, 10th-, and 12th-graders, respectively.

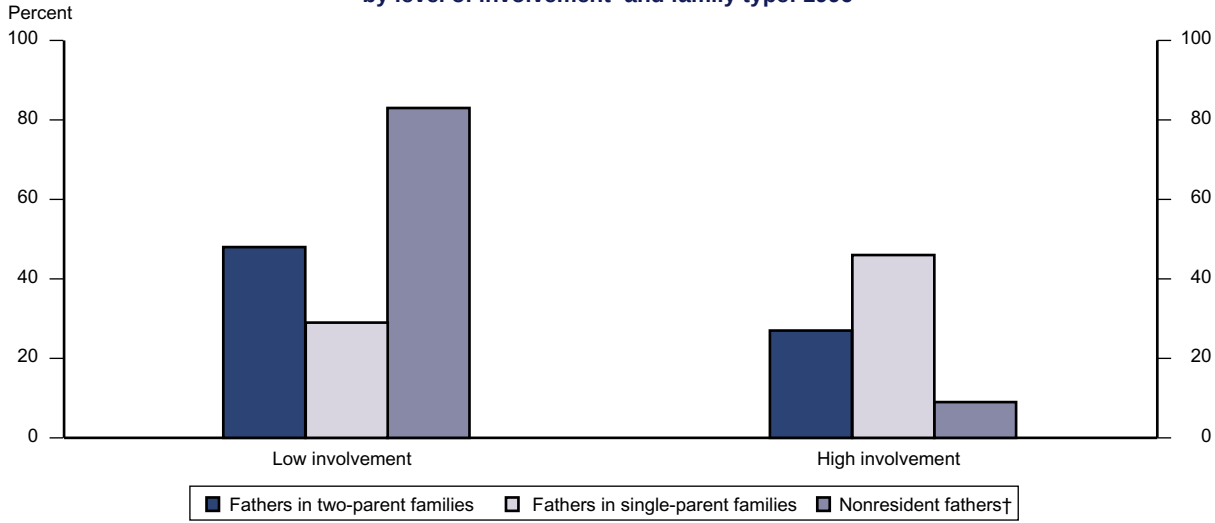
NOTE: Only drug use not under a doctor's orders is included. Estimates were tabulated using restricted-use files. Response rates for this survey do not meet NCES standards.

SOURCE: University of Michigan, Survey Research Center, Institute for Social Research, Monitoring the Future Study.

16 Fathers' involvement in their children's education

Current research indicates that fathers' involvement in their children's education has a positive effect on student achievement and success in school. The role fathers assume in their children's education has become the subject of increasing interest to researchers and policymakers because single and nonresident fathers have become more common and higher proportions of mothers have entered the labor force. Fathers in single-parent families were more likely to have a high level of involvement in their children's schools than were fathers in two-parent families and nonresident fathers. Nearly half of fathers in two-parent families had a low level of involvement in their children's schools, as did a large majority of nonresident fathers. Children of fathers with high levels of involvement in their schools were generally more likely than children of fathers with low levels of involvement to have positive school outcomes.

Percentage of students in grades K–12 whose fathers were involved in their schools during the current school year, by level of involvement[1] and family type: 1996



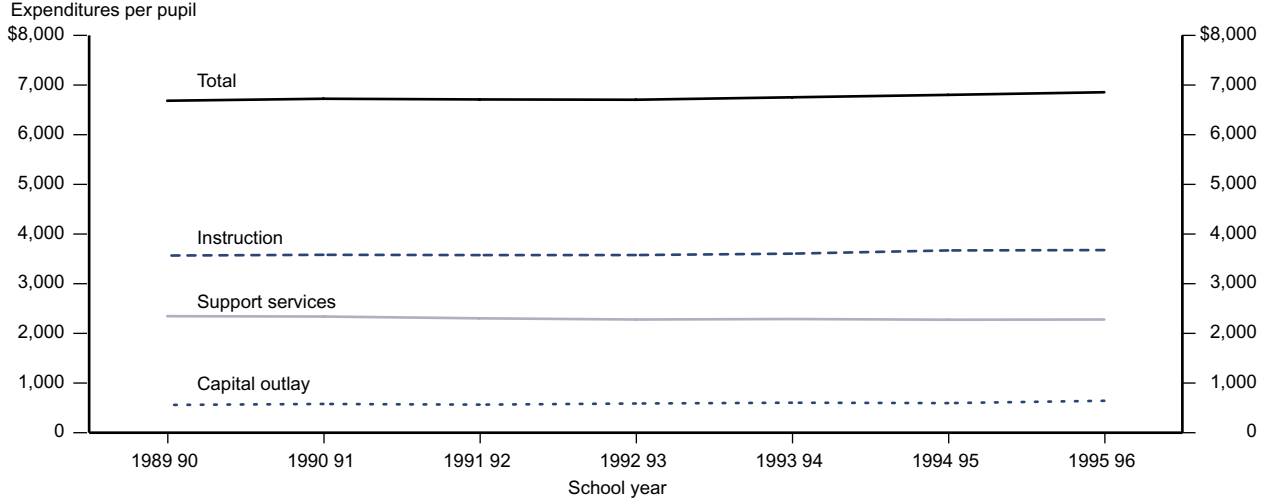
[1] Low involvement is defined as participation in none or only one activity out of four; high involvement is defined as participation in three or four activities.

[2] These percentages represent the 75 percent of all nonresident fathers who were reported to have had contact with their children within the past year.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, 1996 (Parent and Family Involvement in Education and Civic Involvement Components).

How school districts spend the funds they receive is influenced by many factors, such as the overall level of funding; the differences in student needs (e.g., demand for special education services and programs for limited-English-proficient students); and the relative cost of educational resources (e.g., teacher salaries, building maintenance, and construction costs for new schools). The distribution of expenditures across these areas is an indication of how public school systems allocate funds to meet their specific needs. In the 1995–96 school year, public schools spent, on average, $6,855 per pupil (in constant 1998 dollars). Of that amount, more than half ($3,677) was spent on instruction, which includes teacher salaries and benefits, supplies, and purchased instructional services. In the 1994–95 school year, relatively high wealth school districts (those with a median household income of $35,000 or more) spent more per pupil than school districts with less wealth.

Public school expenditures per student (in constant 1998 dollars), by type of expenditure: School years 1989–90 to 1995–96



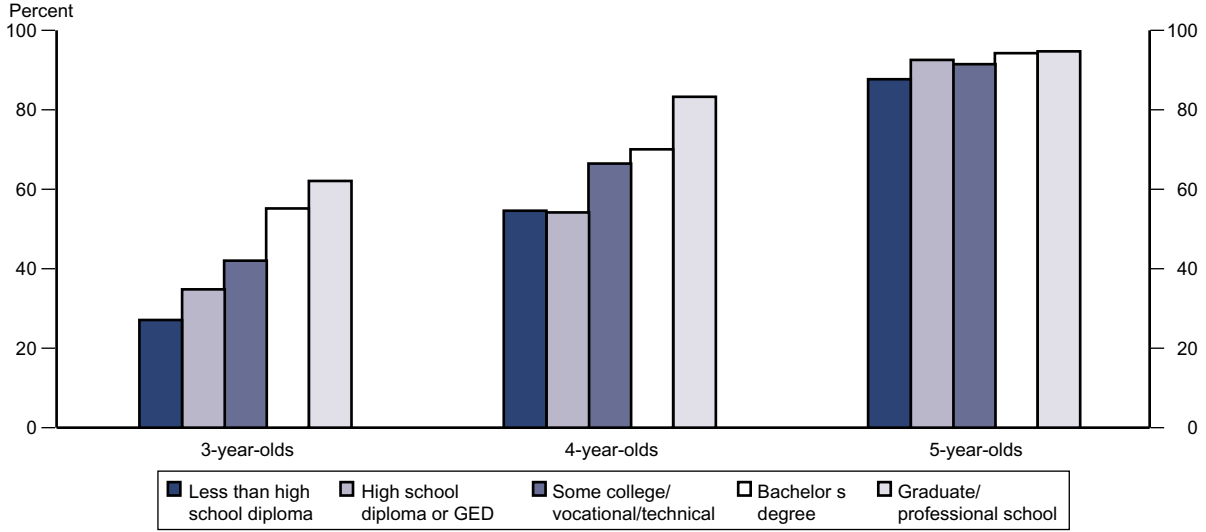
NOTE: The district characteristics are from the U.S. Department of Commerce, Bureau of the Census, “1990 Census School District Special Tabulations.” The school year Consumer Price Index (CPI) was used to adjust expenditures to constant 1998 dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys, various years, and “School District Finance File,” 1994–95. U.S. Department of Commerce, Bureau of the Census, “1990 Census School District Special Tabulations.”

18 Preprimary education enrollment

Participating in early childhood programs such as Head Start, nursery school, prekindergarten, and kindergarten can better prepare a child to enter first grade. Involving students and their parents in preprimary programs beginning at earlier ages may provide valuable experiences that will help children start elementary school better prepared to learn. There was a positive relationship between parents' educational attainment and the enrollment rates of 3-, 4-, and 5-year-olds: as parents' educational attainment increased, so did the preprimary enrollment rates of their children.

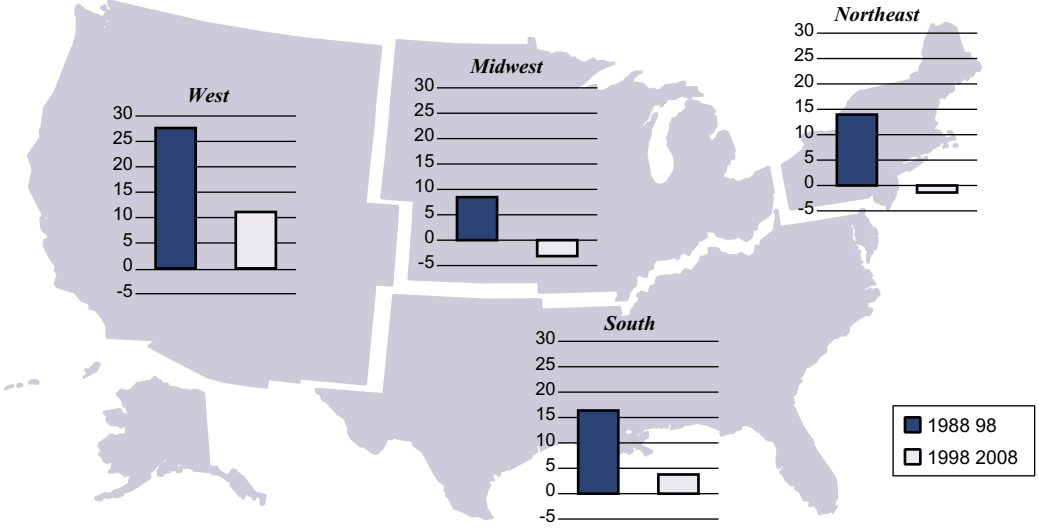
Percentage of 3-, 4-, and 5-year-olds enrolled in center-based programs or kindergarten, by parents' highest education level: 1996



NOTE: This analysis includes children ages 3–5 who were not enrolled in first grade. Age is as of December 31 of the prior year. Data are revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey (NHES) and 1996 (Parent and Family Involvement in Education File).

School enrollment is one measure of the size of the educational system and of the demand for teachers, buildings, and educational resources. Total elementary and secondary school enrollment is projected to increase by 3 percent (to 54.3 million) between 1998 and 2008. Secondary school enrollments (grades 9–12) are projected to increase by 11 percent for both public and private schools between 1998 and 2008, while enrollment in prekindergarten through grade 8 is projected to decrease slightly. Total public school enrollment is projected to increase in the South and West (by 4 and 11 percent, respectively) but to decrease in the Northeast and Midwest (by 1 and 3 percent, respectively) between 1998 and 2008.

Projected percentage change in public elementary and secondary enrollment, by region: Fall 1998–2008

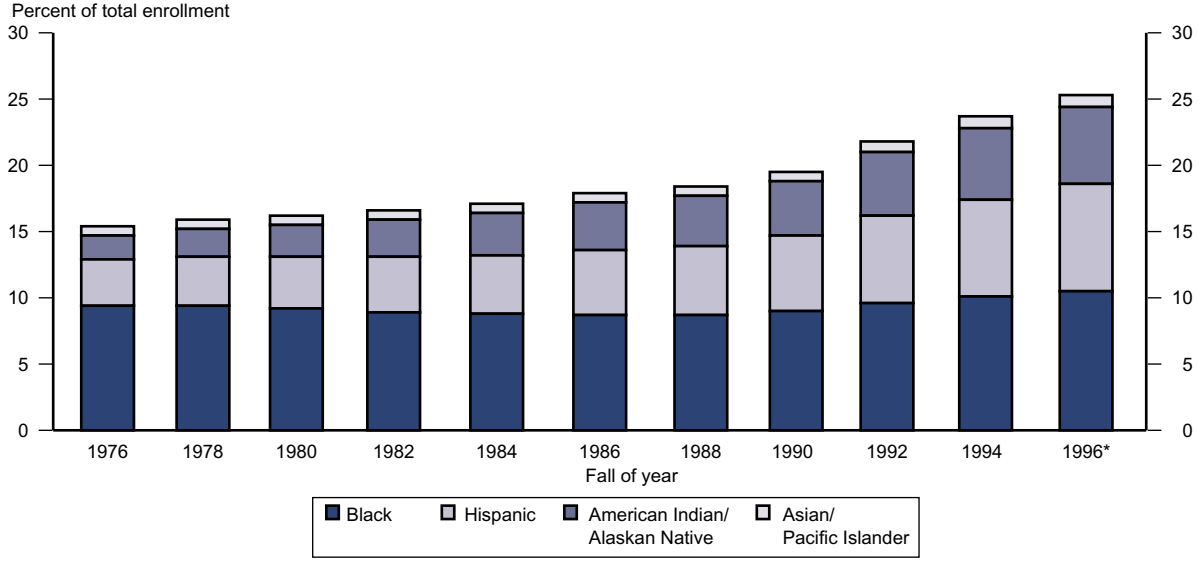


SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 1998* (based on Common Core of Data) and *Projections of Education Statistics to 2008,* 1998.

20 Racial and ethnic distribution of college enrollments

Colleges and universities seek diversity within their student bodies. Variety in the backgrounds and interests of students can enhance the learning environment. The student body in the Nation's colleges and universities has become increasingly heterogeneous since the mid-1970s. The percentage of minority students increased from 15 percent of all students in fall 1976 to 25 percent in fall 1996. This increase was due primarily to the growth in the enrollment of Hispanic and Asian/Pacific Islander students, whose enrollment as a percentage of all college students increased about 4 percentage points for each group. Black students accounted for 11 percent of the total enrollment at colleges and universities in fall 1996. Hispanics made up 8 percent of enrolled students; Asian/Pacific Islanders, 6 percent; and American Indian/Alaskan Natives, 1 percent.

Percentage of minority enrollment in higher education institutions, by race–ethnicity: Fall 1976–96

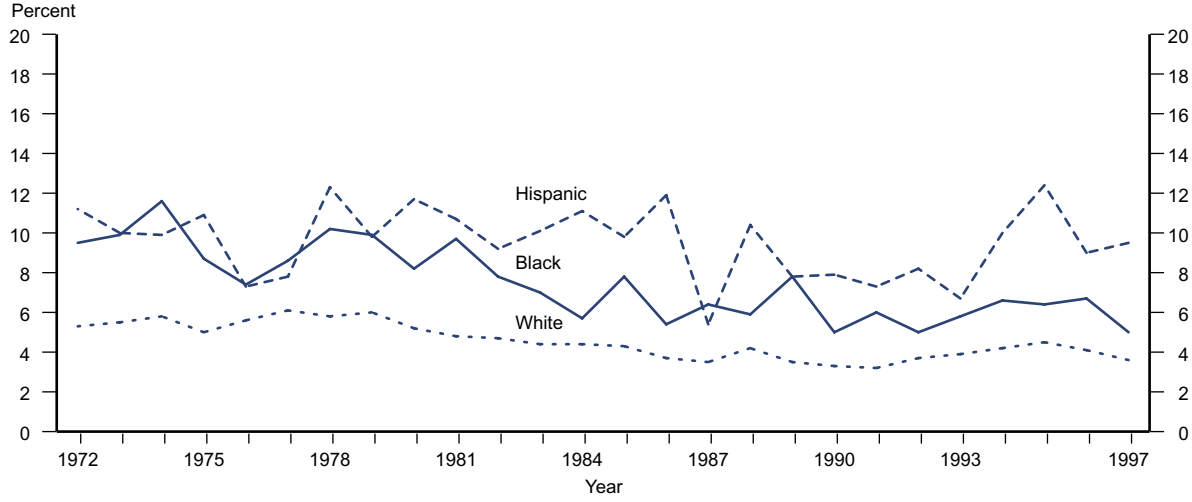


* Estimates based on preliminary data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on the IPEDS "Fall Enrollment" surveys).

Students who drop out of school have fewer opportunities to succeed in the work force or to assume a fully functional place in society than those students who complete high school. The event dropout rate, a measure of the proportion of students who drop out in a single year without completing high school, is one of several ways to define dropout rates. Between 1972 and 1997, the dropout rates for whites and blacks decreased, while the dropout rate for Hispanics did not change significantly. During this period, the dropout rate for blacks decreased at a faster rate than that for whites.

Event dropout rates* for those in grades 10–12, ages 15–24, by race–ethnicity: October 1972–97



* The event dropout rate is the percentage of those in grades 10–12, ages 15–24, who were enrolled the previous October, but who were not enrolled and had not graduated in October of the current year.

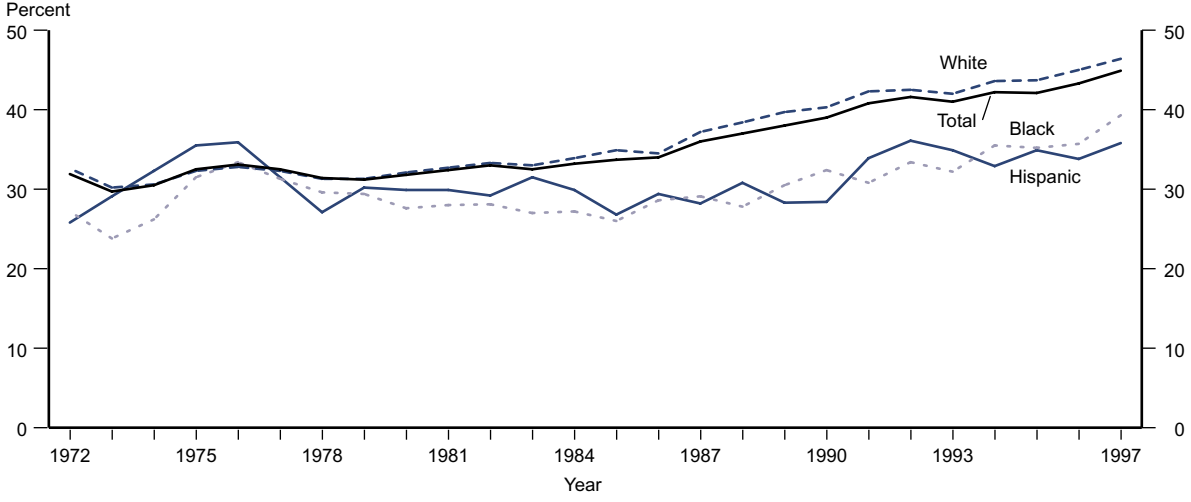
NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. Beginning in 1992, the Current Population Survey (CPS) changed the questions used to obtain the educational attainment of respondents.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Dropout Rates in the United States, 1997*, 1999 (based on the October Current Population Surveys).

22 Racial and ethnic differences in the transition to college

Racial and ethnic differences in college enrollment rates reflect differences in access to and persistence in higher education for groups with varying social and economic backgrounds. Differing enrollment rates are also an indicator of future differences in the earnings and productivity associated with postsecondary education. The percentage of high school completers ages 18–24 who were enrolled in college was higher in 1997 than in 1972. In 1997, college enrollment rates for whites, blacks, and Hispanics were 14, 12, and 10 percentage points higher, respectively, than they were in 1972. In 1997, white high school completers ages 18–24 were more likely to be enrolled in college (46 percent) than their black and Hispanic counterparts, although blacks and Hispanics ages 18–24 showed similar rates of college enrollment (39 and 36 percent, respectively). In contrast, in the mid- to late 1970s, white, black, and Hispanic completers showed similar rates of college enrollment.

Percentage of high school completers ages 18–24 enrolled in college, by race–ethnicity: October 1972–97

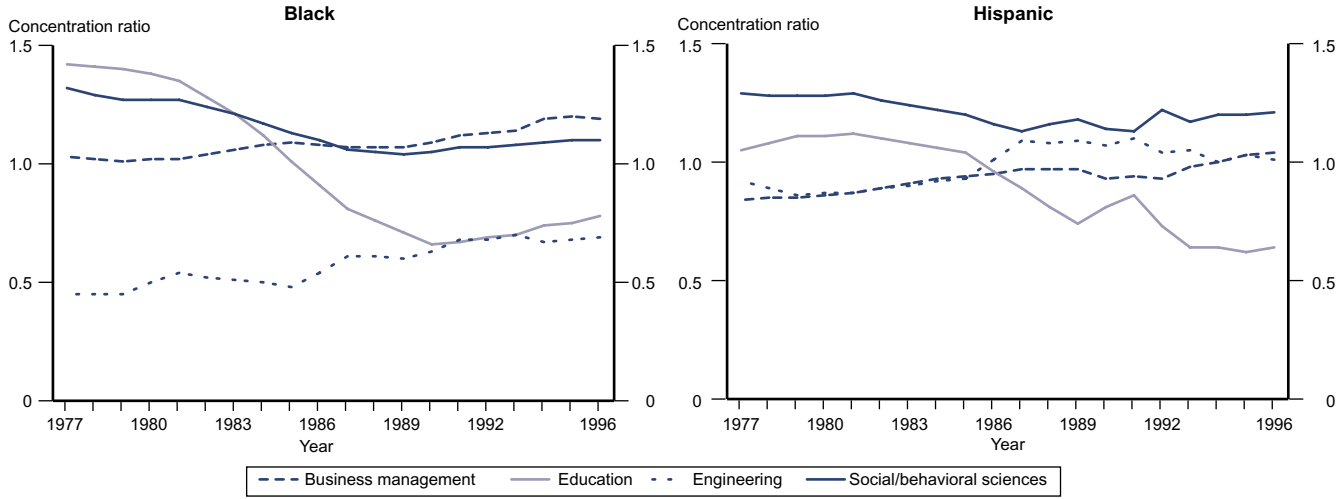


NOTE: In 1994, the survey instrument for the Current Population Survey (CPS) was changed and weights were adjusted. Included in the total but not shown separately are high school completers from other racial–ethnic groups.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Trends in the number and proportion of bachelor's degrees conferred in different fields, as well as the distribution of these degrees across racial–ethnic groups, help not only to identify changing conditions in the supply and demand of the job market but also to provide some insight into the diversity of the Nation's future work force. After declining for several years, the number of bachelor's degrees conferred in the humanities and the social and behavioral sciences has grown since the mid-1980s. Combined with business management degrees, these three types of degrees have constituted more than half of all degrees conferred since 1971. Between 1977 and 1996, increasing proportions of black students earned bachelor's degrees in physical sciences, mathematics, computer sciences and engineering, and business management. These increases led to a narrowing of the black–white disparity in the physical sciences and mathematics and to a widening of the black–white disparity favoring blacks in business management since the late 1970s. After remaining relatively unchanged between 1977 and 1991, the Hispanic–white disparity in physical sciences widened.

Minority field concentration ratio* at the bachelor's degree level, by selected fields of study: Academic years ending 1977–96



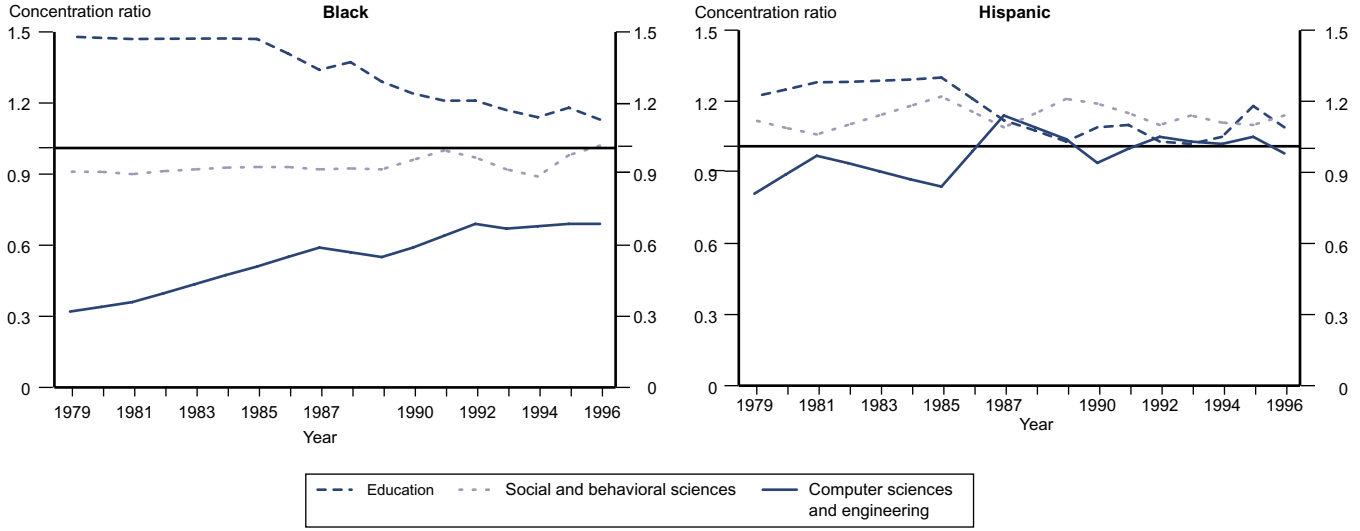
* The minority field concentration ratio is calculated as the percentage of a minority group earning bachelor's degrees who majored in a selected field of study divided by the percentage of whites earning bachelor's degrees who majored in the same field. For example, the 1996 black to white concentration ratio for education = 0.78/10.1 = 0.78. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

24 Graduate field of study, by sex and race–ethnicity

The minority field concentration ratio shows how much the fields studied by various minority groups differ from those studied by whites. Changes in the ratio show whether differences in field preferences of minorities and whites are narrowing or widening and may also indicate changes in the occupations and earning potential of minorities. Between 1979 and 1996, the proportion of black and Hispanic master's degree recipients who earned degrees in the natural sciences and computer sciences/engineering increased. In 1996, black recipients were 44 and 31 percent less likely than whites to earn degrees in the natural sciences and computer sciences/engineering, respectively; however, Hispanics were 28 and 2 percent less likely than whites to earn degrees in these fields.

Minority field concentration ratio of master's degrees conferred: Academic years ending 1979–96

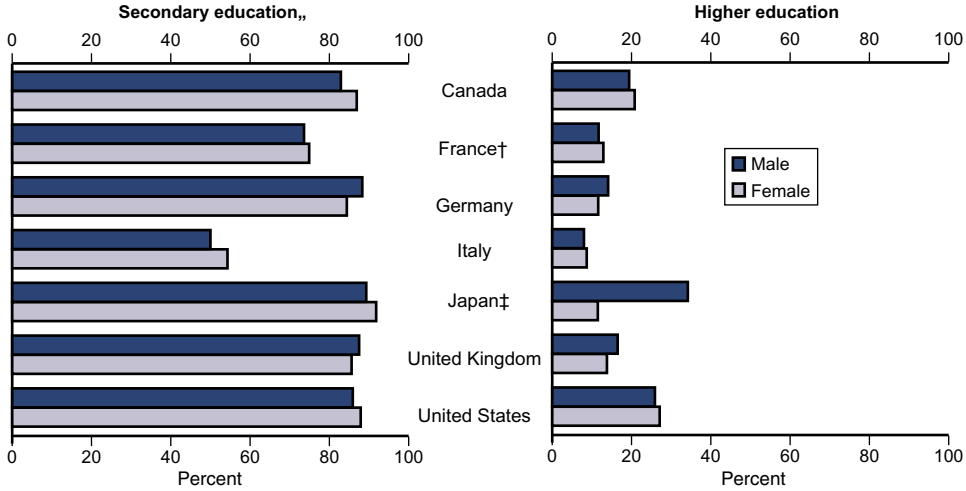


NOTE: The minority field concentration ratio is calculated as the percentage of a minority group earning master's degrees who majored in a selected field of study divided by the percentage of whites earning master's degrees who majored in the same field. For example, the 1996 black-to-white concentration ratio for education = 33.2/29.3 = 1.13. A value greater than 1 indicates that minority graduates are more likely to major in that field than whites, whereas a value less than 1 indicates that minority graduates are less likely to major in that field than whites.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, various years (based on IPEDS "Completions" surveys).

The percentage of the population completing secondary and higher education in different countries may be used to compare the skill level of the U.S. work force with that of its economic competitors. In the United States, the United Kingdom, Germany, and Canada, at least 80 percent of adults ages 25–34 had completed secondary education in 1996. In comparison, only in the United States and Germany had 80 percent or more of adults ages 45–54 completed secondary education. The similarities in secondary educational attainment rates for those ages 25–34 indicate that other countries have gradually caught up to or surpassed the United States in terms of the percentage of their populations completing secondary education.

Percentage of the population in large, industrialized countries who have completed secondary and higher education, age 25–34, by sex and country: 1996



[1] Includes individuals who have completed at least secondary education.

[2] The allocation for individual education level for France was revised in 1996. The result is a reduction in the number of people with upper secondary level qualification and an increase in the number with lower secondary level qualification.

[3] Data are for 1989.

NOTE: In the United States, completing secondary education is defined as graduating from high school or earning a GED; completing higher education is defined as earning a bachelor's degree or higher. Individuals for whom educational attainment is unknown are excluded from the analysis.

SOURCE: Organisation for Economic Co-operation and Development, INES Project, International Indicators Project.