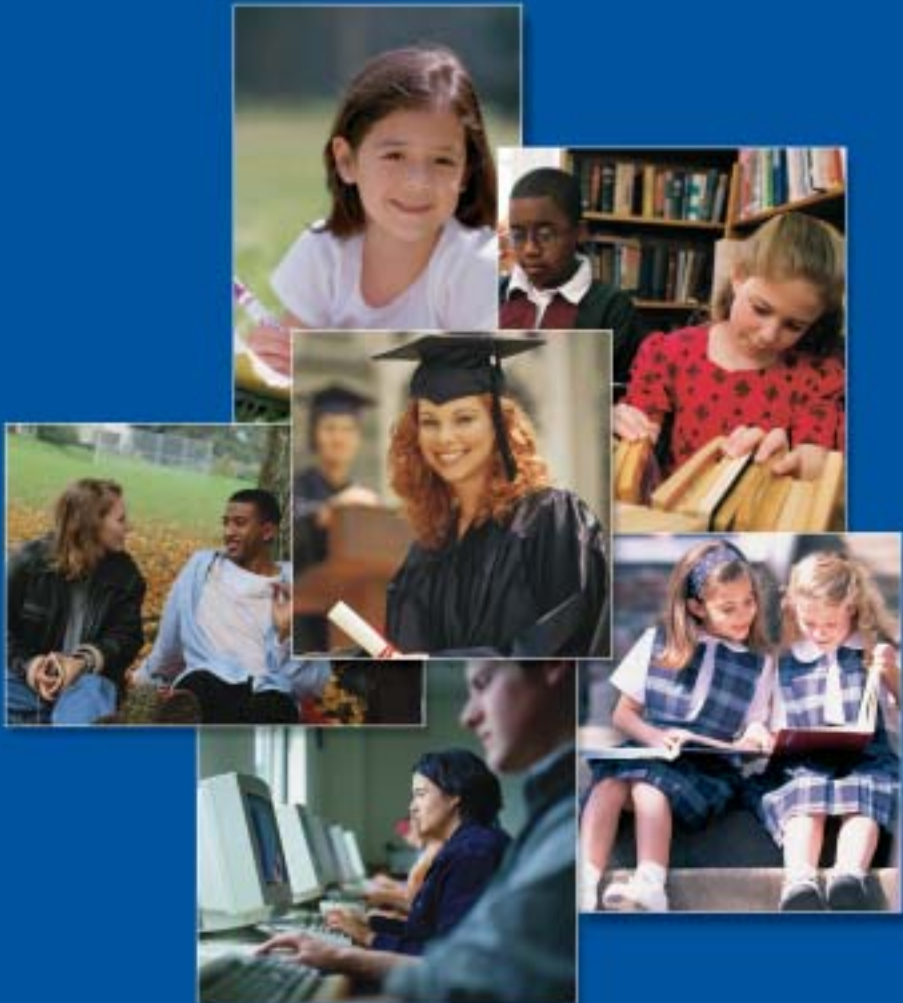


# Trends in Educational Equity of Girls & Women: 2004





**U.S. Department of Education**  
Institute of Education Sciences  
NCES 2005-016

# **Trends in Educational Equity of Girls & Women: 2004**

**November 2004**

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## EXECUTIVE SUMMARY

This report draws upon a wide range of published and unpublished statistical materials to present an overview of the educational status of girls and women in the United States. *Trends in Educational Equity of Girls & Women* contains a selection of indicators that illustrate the educational gains made by females in recent years as well as areas where gaps continue to exist. This statistical report assembles a series of indicators that examine the extent to which males and females have access to the same educational opportunities, avail themselves equally of these opportunities, perform at similar levels throughout schooling, succeed at similar rates, and reap the same benefits from their educational experiences.

This report serves as an update of an earlier publication, *Trends in Educational Equity of Girls & Women* (NCES 2000-030). General topics covered by this report are similar to those addressed in the 2000 report. Many indicators that were included in the 2000 report have been updated with the most recent data available. In addition, a number of new indicators have been added, designed to reflect the most current research on topics relevant to educational equity.

The report begins with an overview that summarizes the report's major findings. A series of 38 indicators follow, which examine various facets of educational equity. The indicators begin with preprimary and early elementary education, move through elementary and secondary education and postsecondary education, and finally, consider educational outcomes. Each

indicator shows the status of females relative to males. Some indicators include further breakdowns, such as those by race/ethnicity; however, the general focus of this report is on overall comparisons between males and females and not on the experiences of various subgroups, which may show different patterns. The data for the indicators are drawn primarily from surveys conducted by the National Center for Education Statistics (NCES), although several other sources of national and international data are used as well. Although these indicators provide valuable information on many aspects of educational equity, some important topics cannot be addressed with available, nationally representative data. Examples of such topics include the extent to which sexual harassment undermines the ability of schools to provide a safe and comfortable learning environment and whether girls and young women are encouraged to challenge themselves in their educational pursuits, especially in mathematics and science.

The data presented in this publication demonstrate that in elementary and secondary school and in college, females are now doing as well as or better than males on many indicators of achievement and educational attainment, and that large gaps that once existed between males and females have been eliminated in most cases and have significantly decreased in other cases. Women are still underrepresented in some fields of study, as well as more generally in doctoral and first-professional degree programs, although they



have made substantial gains in the past 30 years. These differences may have labor market consequences.

### Preprimary and Early Elementary Education

Certain kinds of preschool experiences, such as participating in high-quality preprimary programs and engaging in early literacy activities with parents, are widely believed to help prepare young children for the more structured learning that takes place in elementary school. Therefore, whether males and females have the same access to these kinds of opportunities is of interest from an educational equity standpoint.

*In terms of many learning opportunities, males and females start school on a similar footing. In certain other areas, females appear to start school ahead.*

Between 1990 and 2001, the percentage of 3- to 5-year-olds enrolled in preprimary programs and kindergarten increased. In 2001, similar percentages of males (63 percent) and females (64 percent) were enrolled in preprimary and kindergarten education (*indicator 1*). However, in terms of early learning experiences in the home, a higher percentage of females (86 percent) than males (82 percent) had been read to three or more times in the past week (*indicator 2*). For both males and females, participation in literacy activities generally increased between 1991 and 2001.

General knowledge assessments indicate that males and females are similar in terms of their general knowledge in kindergarten and first grade. Males and females also generally performed similarly on the overall reading assessment; however, higher percentages of females (80 percent) than males (73 percent) could recognize words by sight in the spring of first grade. Males and females had similar levels of sight word recognition in third grade (*indicator 3*).

Kindergartners who entered in the fall of 1998 increased their overall mathematics performance scores by 10 points by the spring of their kindergarten year compared to their initial assessment. By the end of third grade, these students more than tripled their performance. With the exception of the third-grade assessment, males and females performed similarly on overall

mathematics performance. In third grade, males scored higher than females, 87 to 83 (*indicator 4*). No differences were detected between males and females on any of the assessments of addition and subtraction skills.

### Elementary and Secondary Education

Because school attendance is generally compulsory between ages 6 and 16, equal access to schooling at the elementary and secondary level is not at issue. However, many topics beyond access to schooling remain of critical importance from an equity standpoint, such as the extent to which males and females have access to the same types of educational opportunities, take similar advantage of these opportunities, and achieve at the same level while in school. Data on various aspects of the elementary and secondary school experiences of males and females—such as their progress through school, academic performance, access to computers, and participation in extracurricular activities—provide some indication of the extent to which gender equity in education has been achieved.

#### Progress Through School

*Females are less likely than males to repeat a grade and to drop out.*

The percentage of 5- to 12-year-old males who had repeated at least one grade declined between 1996 and 1999. In 1999, females ages 5 to 12 years old were less likely than males of the same age to have repeated a grade: approximately 8 percent of males compared to 5 percent of females had repeated a grade since starting school (*indicator 11*). In recent years, females have also become less likely than males to drop out of high school; for example, in 2001, the status dropout rate for 16- to 24-year-olds (i.e., the percentage who had not completed high school and were not enrolled in school) was 12 percent for males, compared to 9 percent for females (*indicator 19*). This marks a change from the general pattern in the 1970s, when dropout rates were similar for males and females.

The status dropout rate decreased for both males and females between 1972 and 2001. When examined by sex and race/ethnicity, the dropout rate of White males and females, Black males

and females, and Hispanic females decreased during this period, while no decrease was detected for Hispanic males.

Males and females who have a child in high school are more likely to drop out of high school and less likely to receive a bachelor's degree (*indicator 20*). Among females who were eighth-graders in 1988, 71 percent who had a child in high school had completed high school as of 2000, compared to 95 percent who had no child as of 2000. Furthermore, only 2 percent of females who had a child in high school had received a bachelor's degree by 2000, compared to 44 percent of those with no child. Becoming a parent while still in high school was related to the educational attainment of males as well. Males who became fathers in high school were significantly less likely than those who were not fathers, as of 2000, to have completed high school (65 percent vs. 94 percent) and to have received a bachelor's degree (4 percent vs. 36 percent).

*On a variety of measures, males seem to be more likely than females to experience serious problems at school and to engage in risky behaviors.*

Evidence suggests that females are less likely than males to have certain problems, such as being diagnosed with a learning disability and being victimized at school, which may negatively affect their progress through school (*The Condition of Education 1997*, NCES 97-388). In 1999, males in grades 1–5 were more likely than females to have been identified as having a disability (21 percent vs. 14 percent, respectively; *indicator 12*). In particular, males were more likely than females to have been identified with a learning disability, emotional disturbance, and speech impediment.

In 2001, among 12- to 18-year-old students, the percentage of males who reported that they had experienced criminal victimization at school during the previous 6 months was higher than the percentage of females reporting the same experience (6 vs. 5 percent). Similarly, a higher percentage of males than females reported being bullied at school (9 vs. 7 percent, *indicator 16*).

In addition, female students appear to be less likely than male students to engage in certain behaviors, such as drug use and violence that

may put themselves and others at risk. In 2001, females in grades 9–12 were less likely than males to report using alcohol at least once in the previous 30 days on school property (4 vs. 6 percent) as well as in general (45 vs. 49 percent). Likewise, high school females were also less likely than their male counterparts to report using marijuana at least once in the previous 30 days on school property (3 vs. 8 percent) as well as in general (20 vs. 28 percent, *indicator 18*). The percentage of students who reported being offered or given an illegal drug on school property in the previous 12 months was also lower for females (23 percent) than males (35 percent). Overall, the percentages of students who reported using cigarettes, marijuana, and who were offered, sold, or given an illegal drug on school property decreased between 1997 and 2001. However, there was no decrease detected during this period in the percentage of students who reported using alcohol on school property. Males in these grades were also much more likely than females to engage in certain violent activities on school property; higher percentages of males than females reported being in a physical fight in the previous 12 months (18 percent vs. 7 percent), and carrying a weapon to school in the previous 30 days (10 percent vs. 3 percent; *indicator 17*).

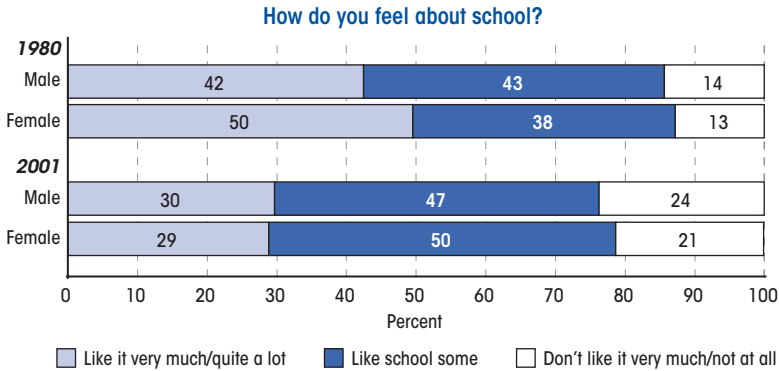
*High school seniors' attitudes toward school have become increasingly negative, particularly among females.*

Despite apparent differences in the extent to which females and males experience certain problems as they progress through school, the general attitudes of male and female high school seniors toward school were similar in 2001; 29 percent of females and 30 percent of males reported liking school very much (figure A and *indicator 13*). This marked a change from 1980, when females were more likely than males to report liking school. It also marked a decline, among both males and females, in these positive attitudes toward school from 1980, when 50 percent of females and 42 percent of males reported liking school very much. This decline occurred at a faster rate for females than for males.

### Academic Performance

Academic performance is a key measure of school success because high performance in school opens

Figure A. Percentage of high school seniors' responses to the question, "How do you feel about school?," by sex: 1980 and 2001



NOTE: The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1980 and 2001 unpublished data.

doors to postsecondary education and to well-paying jobs. For females to have the same opportunities as males in postsecondary education and in the labor market, it is important for them to be equally well prepared academically. Overall, females have done much better than males in reading and writing, but have generally, though not always, lagged behind in science and mathematics. Concern exists that this gap in science and mathematics may give them less access to high paying jobs, although there are no data to compare this disadvantage with the possible disadvantage faced by males because of their lower reading and writing achievement.

#### *Females have consistently outperformed males in reading and writing.*

Reading and writing are basic skills required for most jobs and for functioning in contemporary society. Scores on the main assessment of the National Assessment of Educational Progress (NAEP) reveal that females in grades 4, 8, and 12 have consistently outperformed males in reading. The main assessment data from NAEP show females continued to have higher reading scores than males at all three grades, but there were no measurable increases in females' scores when 1992 data were

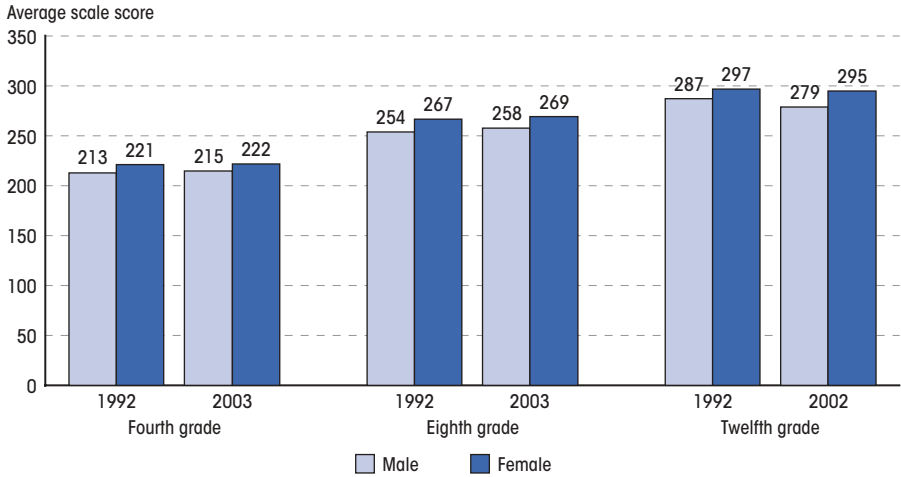
compared to 2003 data at grades four and eight, and there was a decrease in twelfth-grade reading scores for females—from 297 in 1992 to 295 in 2002 (figure B and *indicator 5*).

Gender differences in reading achievement have been observed internationally as well. In every G8 country participating in the Progress in International Reading Literacy Study (PIRLS) 2001, fourth-grade girls scored significantly higher than boys on the combined reading literacy scale. In the United States, girls scored an average of 18 points higher (*indicator 8*). In each of 28 Organisation for Economic Co-operation and Development (OECD) countries participating in the Program for International Student Assessment (PISA) in 2000, 15-year-old females outperformed their male peers in reading (*indicator 9*).

Females in the United States in grades 4, 8, and 12 also outperformed their male peers in writing in 1998 and 2002 (figure C and *indicator 5*).

However, females' higher achievement in reading and writing on the NAEP assessments did not translate into higher achievement on AP examinations in English. Although females accounted for a higher proportion of students taking the AP

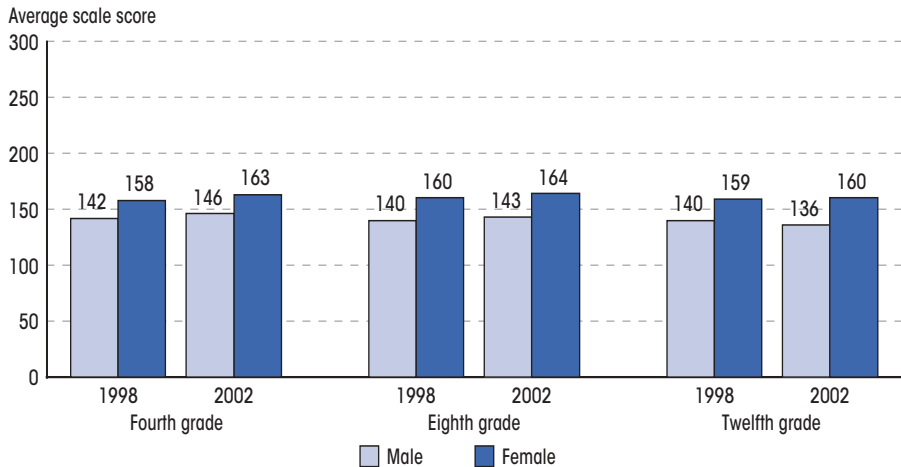
**Figure B. Average scale scores in reading for fourth-, eighth- and twelfth-graders, by sex: Various years, 1992, 2002, and 2003**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Accommodations were not permitted for the 1992 assessment. Scale ranges from 0 to 500. For a discussion of the reading scale score definitions, please see <http://nces.ed.gov/nationsreportcard/reading/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 2002, and 2003 Reading Assessments.

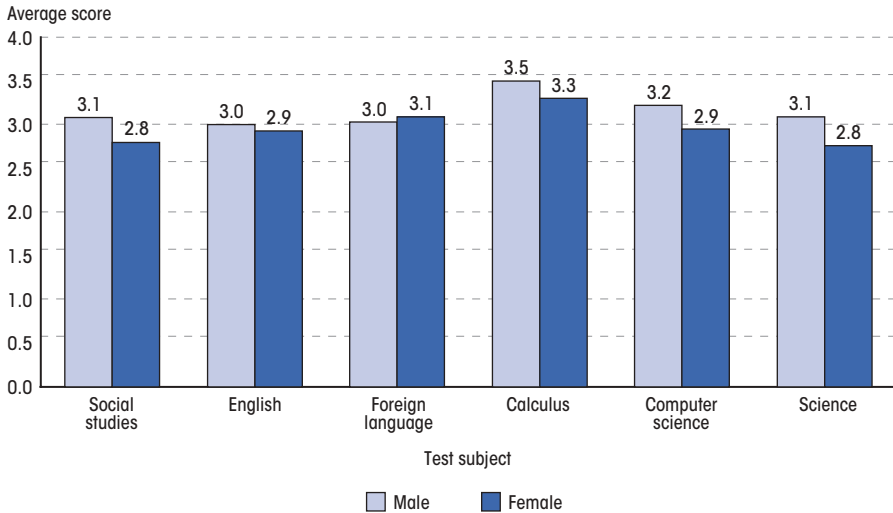
**Figure C. Average scale scores in writing for fourth-, eighth-, and twelfth-graders, by sex: 1998 and 2002**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 300, with a national average of 150. See *The Nation's Report Card: Writing 2002* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1998 and 2002 Writing Assessments.

Figure D. Average score on Advanced Placement (AP) examinations, by test subject area and sex: 2002



NOTE: Please see the report, *Advanced Placement Program, National Summary Report, 2002*, from the College Board for more specific information regarding test subjects.

SOURCE: The College Board, *Advanced Placement Program, National Summary Report, 2002*.

examination in English in 2002, their average score was lower than that of males (figure D and *indicator 22*).

*There are some gender differences favoring male students in mathematics and science.*

Proficiency in science and mathematics has become particularly important, as jobs in our technological society increasingly require workers to use complex mathematics skills and scientific knowledge to solve problems (*The Nation's Report Card: Mathematics 2000*, NCEES 2001-517). Although there is a common perception that males consistently outperform females in mathematics, NAEP mathematics scores have not shown this (figure E and *indicator 6*). In mathematics, the gap between average scale scores has been quite small and fluctuated only slightly between 1990 and 2003.

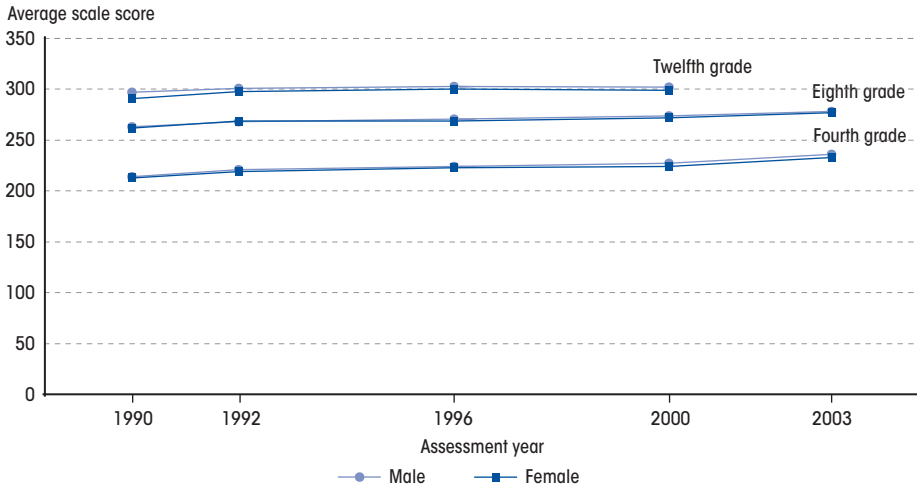
In 2002, males made up a higher proportion of students taking AP exams in science and calculus.

Males also obtained higher average scores on these examinations compared to females (figure D and *indicator 22*).

Gender differences in mathematics proficiency favoring males were observed internationally in PISA, although the differences were neither as large nor as consistent across countries as the differences favoring females in reading. In 13 of 28 participating countries, males outperformed females; however, this was not the case in the United States (*indicator 9*).

Trends in science achievement have been slightly different. Among fourth- and eighth-graders, males scored higher than females on the 2000 science assessment, but not on the 1996 assessment. In contrast, among twelfth-graders, males outperformed females on the 1996 assessment, but there was no measurable difference on the 2000 assessment. The score gap between males and females increased between 1996 and 2000 at the fourth and eighth grades, but there was no measurable

**Figure E. Average scale scores in mathematics for fourth-, eighth-, and twelfth-graders, by sex: 1990, 1992, 1996, 2000, and 2003**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. For both the 1990 and 1992 assessments, accommodations were not permitted. For a discussion of the mathematics scale score definitions, please see <http://nces.ed.gov/nationsreportcard/mathematics/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 2002, and 2003 Mathematics Assessments.

difference in the size of the gap at twelfth grade (*indicator 6*).

### *Gender gaps in mathematics and science coursetaking appear to be shrinking.*

Overall, females' high school academic programs in mathematics and science are at least as challenging as those taken by males. Female high school graduates in 2000 were more likely than their male peers to have taken algebra II, biology, AP/honors biology, and chemistry (figure F and *indicator 21*). Males, by contrast, were more likely than females to have taken physics. The percentage of male graduates who took calculus increased from 6 to 12 percent and the percentage of female graduates who took calculus increased from 4 to 11 percent between 1982 and 2000.

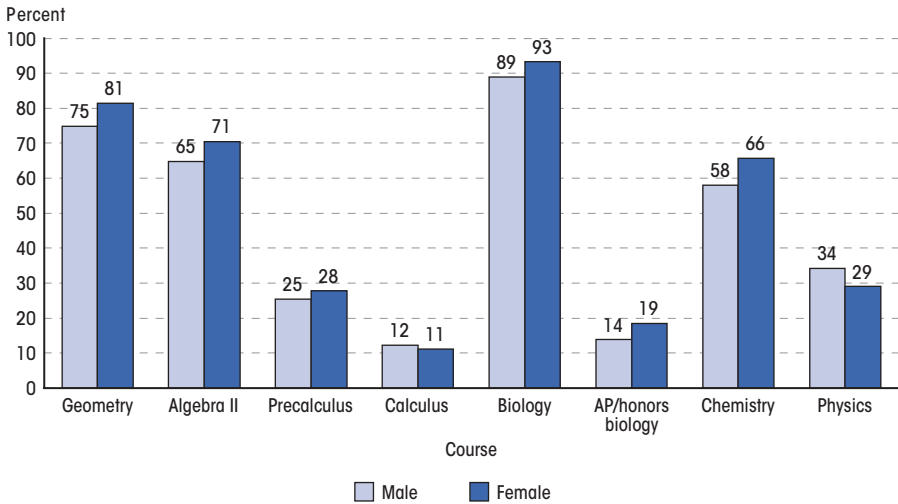
### **Computer Usage**

The computer has become a tool of vital importance in the home, classroom, and workplace. If females are less comfortable with this tool or have less access to a computer at home or at school, they could be at a disadvantage later in their educational careers or in the workplace. Based on available data, males and females have equal access to computers.

### *Females are just as likely as males to use computers at home and at school.*

Reflecting the rapid spread of technology throughout society, the percentage of students in elementary and secondary school using computers at school increased from 60 percent of students in 1993 to 84 percent of students in 2001 (*indicator 10*). The percentage of students who used a computer at home increased from 25 percent of students to 66 percent of students.

**Figure F. Percent of public high school graduates of 2000 who had taken various mathematics and science courses in high school, by sex: 2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2000 High School Transcript Study (HSTS:00).

Similar percentages of males and females used computers at school. In addition, similar percentages of males and females reported computer use at home, both in general and for schoolwork. However, when looking at 5- through 17-year-olds, girls are slightly more likely than boys to use home computers for e-mail, word processing, and completing school assignments (*Computer and Internet Use by Children and Adolescents in 2001*, NCES 2004-014). Despite evident parity in general access to and use of computers, however, there is some evidence that at least some males leave high school with greater interest in and specialized knowledge of computers. For instance, males accounted for 86 percent of students who took the AP examination in computer science in 2002, and males had higher average scores on the examination than females (figure D and *indicator 22*).

### Extracurricular Activities

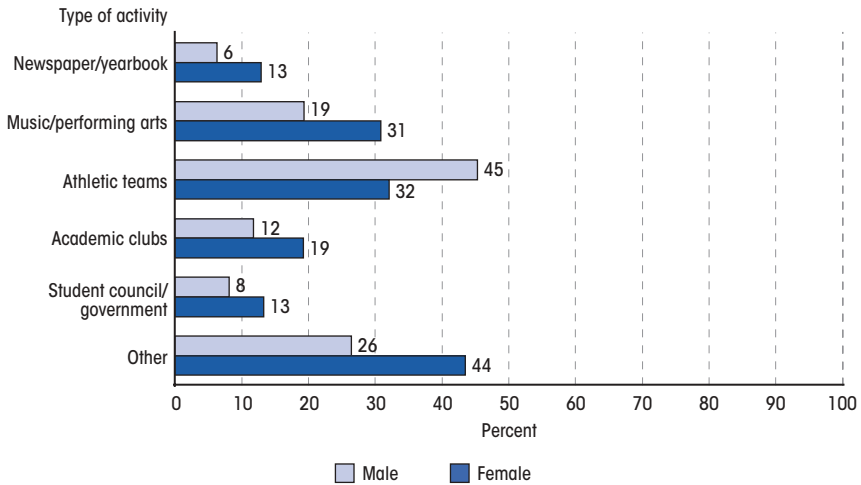
Extracurricular activities offer opportunities for students to develop skills that are important in the workplace and in society, such as team values, individual and group responsibility, physical

strength and endurance, competition, and a sense of community. Consequently, equal access to opportunities to develop such skills is an important component of educational equity.

*Females are more likely than males to participate in various afterschool activities, except for athletics.*

In 2001, females were more likely than their male peers to participate in music or other performing arts, belong to academic clubs, work on the school newspaper or yearbook, or to participate in the student council or government (figure G). Male students, however, were more likely to participate in school athletics than female students. Roughly one-third of female seniors reported participating in music or other performing arts, and one-third reported participating on athletic teams. In contrast, 19 percent of male students reported participating in music or other performing arts, while 45 percent reported participating on athletic teams (*indicator 15*). It is difficult to assess the relative importance of the different types of skills learned in the various activities.

**Figure G. Percent of high school seniors who participated in various school-related activities during the school year, by sex: 2001**



NOTE: The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 2001.

## Postsecondary Education

Females currently have greater success than males in attaining postsecondary education. Females have higher aspirations than males while in high school, they are more likely to enroll in college immediately after graduating from high school, and they persist and complete degrees at higher rates than males. More than half of all bachelor's and master's degrees are awarded to females. Nevertheless, gender differences in majors still exist, with female bachelor's degree recipients much less likely than their male peers to major in computer science, engineering, and physical sciences. Females also still lag behind males in enrollment in first-professional and doctoral programs, but they have made gains in the past 30 years and are closing the gender gap.

### Transition to Postsecondary Education

High school students' plans for further education indicate the importance that young people attach to postsecondary education and their perceptions of their access to it. Aspirations are important, because they are a first step toward attainment. Both aspirations and undergraduate

enrollment rates of females have increased, and females have now surpassed males in both areas.

*Female high school seniors tend to have higher educational aspirations than their male peers.*

In 1990 and 2001, female high school seniors were more likely than their male peers to report that they definitely planned to graduate from a 4-year college (62 percent vs. 51 percent in 2001; *indicator 23*). By 2001, female high school seniors were also more likely than males to report that they definitely would attend graduate or professional school (25 percent vs. 16 percent). This marked a change from 1980, when a higher percentage of males than females reported that they definitely would attend graduate or professional school.

*Females are more likely than males to enroll in college the fall immediately following graduation from high school.*

From 1972 to 2001, the proportions of both males and females who enrolled in college immediately after finishing high school increased, but



females' enrollment increased at a faster rate. In 1972, male high school graduates were more likely than their female peers to enroll in a 2- or 4-year college in the fall after graduating from high school (53 percent vs. 46 percent) (figure H and *indicator 24*). However, despite long-term increases in enrollment between 1972 and 2001, the proportions of females who enrolled in college after high school declined 7 percentage points between 1997 and 2001.

*A majority of undergraduates are female.*

The proportion of the undergraduates who were female increased from the minority to the majority of students between 1970 and 2000; in 1970, 42 percent of all undergraduates were female, while in 2000, 56 percent were female (*indicator 25*). In part, this reflects an increase in the numbers of young women who enter college immediately after completing high school, but it also reflects a sizable number of older women enrolled in school (*Digest of Education Statistics 2002*, NCES 2003–060). Since the late 1970s, at least half of all part-time students have been female, and since 1985, a majority of full-time students have been female as well (figure I). In

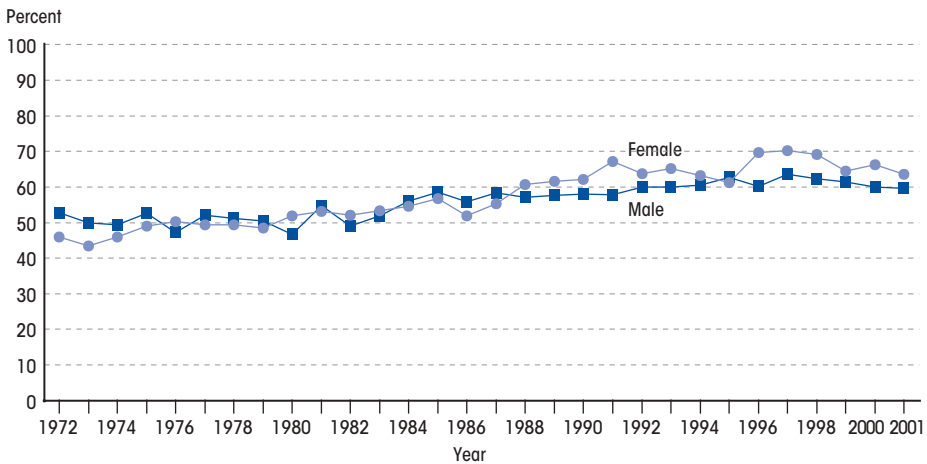
2000, females accounted for 55 percent of full-time enrollment and 58 percent of part-time enrollment.

*Females make up the majority of graduate, but not first-professional, students.*

Females have made even larger gains at the graduate level than at the undergraduate level. In 1970, 39 percent of all graduate students were female, a slightly lower proportion than at the undergraduate level, but in 2000, 58 percent of graduate students were female, a slightly higher proportion than at the undergraduate level (figure J). Female graduate students accounted for a greater percentage of part-time enrollment (61 percent) than of full-time enrollment (54 percent) in 2000.

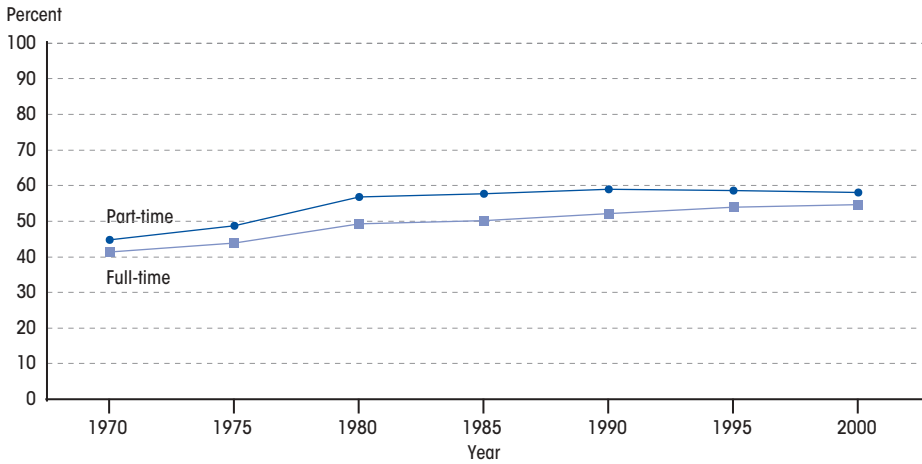
The majority of first-professional students are still men, but women have made dramatic and consistent gains in their representation since 1970 (figure J). While 9 percent of students in first-professional degree programs were women in 1970, by 2000, 47 percent of full-time and 44 percent of part-time first-professional students were women.

**Figure H. Percent of high school completers who were enrolled in college the October following high school completion, by sex: October 1972 to October 2001**



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), 1973–2001.

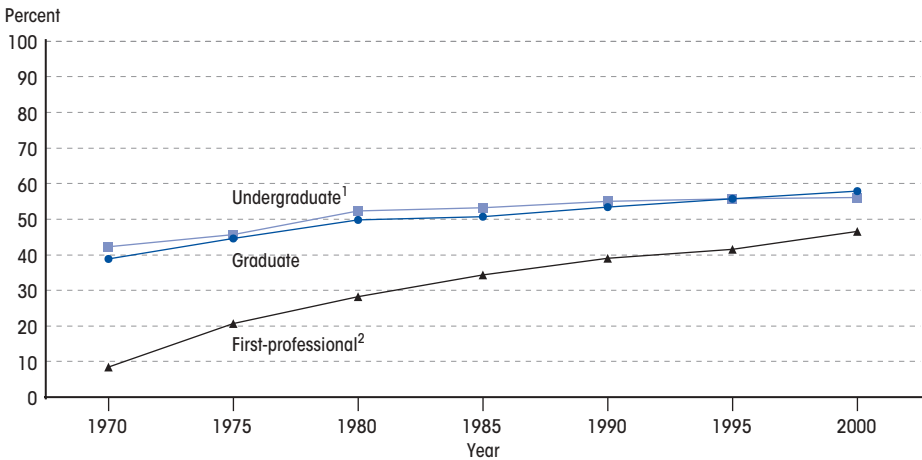
**Figure I. Percent of undergraduates who were female, by enrollment status: Various years, fall 1970 to fall 2000**



NOTE: Includes unclassified undergraduate students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Enrollment" surveys.

**Figure J. Females as a percent of total enrollment in undergraduate, graduate, and first-professional education: Various years, fall 1970 to fall 2000**



<sup>1</sup>Includes unclassified undergraduate students.

<sup>2</sup>First-professional students are enrolled in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D. Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Enrollment" surveys.

## Persistence and Attainment

Enrollment in postsecondary education is one indicator of access. However, completion of post-secondary programs is an even more important indicator of personal success and of an education climate that fosters parity in opportunity.

### *Females are more likely than males to persist and attain degrees.*

Among freshmen who enrolled in a college or university for the first time in 1995–96 seeking a bachelor's degree, a greater percentage of females (66 percent) than males (59 percent) had earned a bachelor's degree by the spring of 2001 (*indicator 28*). A greater percentage of males than females were still enrolled (16 percent vs. 13 percent), indicating that some of the difference in attainment rates might eventually be reduced. A higher percentage of males (21 percent) than females (16 percent) had not obtained a bachelor's degree and were no longer enrolled for a bachelor's degree.

Considering degree attainment more generally (not just those who started in 1995–96), females earned more than half of all bachelor's degrees in 2001 (57 percent; *indicator 29*). This statistic reflects the increasing proportions of female students in postsecondary education, as previously noted. The proportions of Black and Hispanic bachelor's degree recipients who were female in 2000–01 (66 and 60 percent, respectively) were higher than the proportion of White degree recipients who were female (57 percent; *indicator 30*).

The increase in participation by females in postsecondary education over the past 30 years has meant that, among the general population ages 25–29 in 2002, a slightly higher percentage of females than males had attained a bachelor's degree or higher (32 percent vs. 27 percent; *indicator 33*).

### *Degrees in certain fields of study continued to be disproportionately awarded to males or to females, although changes have occurred in recent years.*

Historically, females have tended to account for the majority of bachelor's degrees in fields that often lead to lower paying occupations,

such as education and health professions, while males have typically predominated in higher paying fields, such as computer science and engineering. While some of these disparities persist, many changes have occurred since 1970. Certain fields in which men received the majority of degrees in 1970, such as social sciences and history, psychology, biological sciences/life sciences, and business management and administrative services, attained relative gender parity or were disproportionately female by 2001 (figure K and *indicator 29*). And while other fields, such as computer and information sciences, physical sciences and science technologies, and engineering, continue to have a larger proportion of males, the percentages of females majoring in these areas have risen since 1970.

### *Females have made substantial progress at the graduate level overall, but still earn fewer than half of the degrees in many fields.*

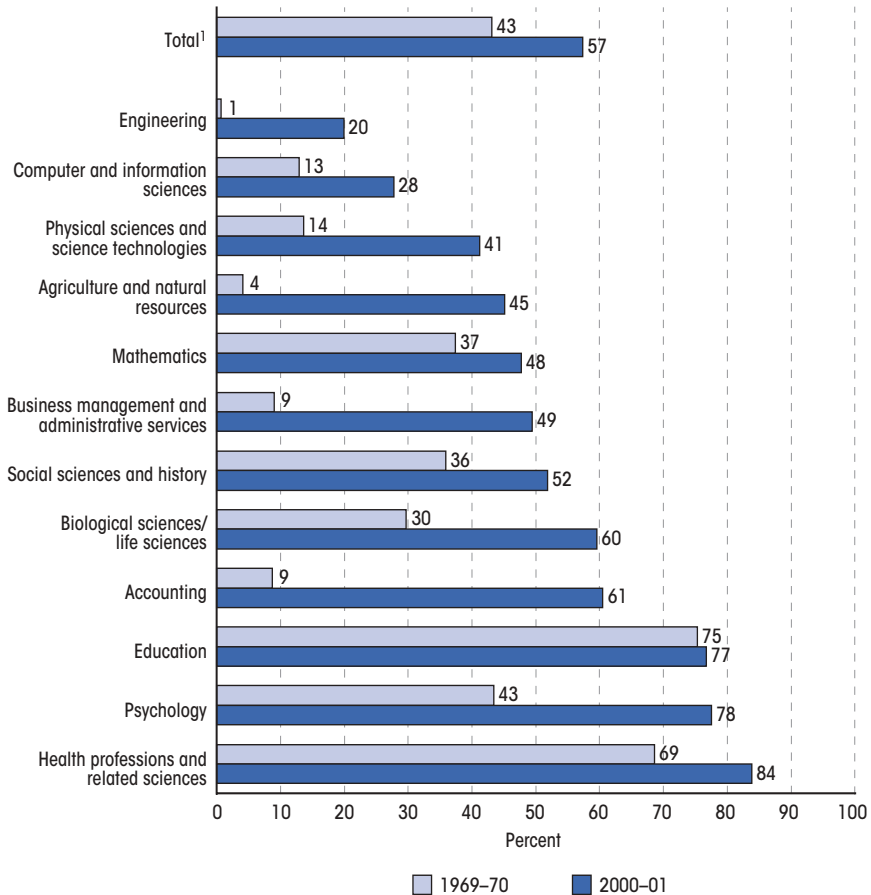
Between 1970 and 2001, the percentages of master's, doctor's, and first-professional degrees earned by females increased substantially in many fields (*indicator 31*). However, advanced degrees conferred still tend to follow traditional patterns, with women accounting for the majority of master's and doctor's degree recipients in education and health, and men accounting for the majority of recipients in computer and information sciences and engineering.

Women's progress toward earning an equal share of first-professional degrees has been notable. In 1970, 5 percent of law degrees, 8 percent of medical degrees, and 1 percent of dentistry degrees were awarded to females; in 2001, the corresponding percentages were 47 percent, 43 percent, and 39 percent.

### *Gender differences in participation rates in collegiate sports have narrowed.*

One final measure of gender equity at the college level is participation in National Collegiate Athletic Association (NCAA)-sponsored sports. Males still outnumber females in collegiate sports participation, but the gap has narrowed. Between 1981–82 (when detailed statistics on females' sports first became available) and 2001–02, the

**Figure K. Percent of bachelor's degrees conferred to females, by selected fields of study: 1969-70 and 2000-01**



<sup>1</sup>Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey;" and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.

number of females participating in Division I sports increased 150 percent, compared with 15 percent for males (*indicator 26*).

Female athletes are more likely than male athletes to graduate in a timely fashion. Among female athletes who entered college in 1995, 69 percent graduated by 2001, compared with 54 percent of men.

## Outcomes

An examination of equity in education requires considering the benefits that males and females receive at the end of schooling. Higher levels of educational attainment are associated with certain labor market outcomes, such as higher labor force participation rates, higher rates of employment, and higher earnings. Labor market outcomes are not the only important outcomes of participation in formal education, but they are

the most readily measured with available national and international data.

*Employment rates for females have increased across all levels of educational attainment since the 1970s.*

The gap between male and female employment rates has narrowed since the 1970s. Both the decline in employment rates of males who did not attend college and the increase in the employment rate of females across all education levels contributed to the overall narrowing of the gap. In 2002, the gender gaps in employment rates were smaller among people with higher levels of education compared to those with a high school diploma or less. However, males continued to have higher employment rates across all levels of education (*indicator 35*).

*Females with bachelor's degrees tend to earn less than males with the same level of educational attainment, but the gap is narrowing.*

Among young people ages 25–34, the median annual earnings for full-time, year-round workers are lower for females than for their male counterparts with the same level of educational attainment. However, over the last 30 years, women have begun to narrow the earnings gap with men. In 1970, young women with a bachelor's degree had a median annual salary that was equivalent to 71 percent of what their male peers earned; in 2000, it was 78 percent (*indicator 36*). The male-female difference in annual earnings for full-time, year-round workers may be attributable at least in part to different occupations and job tenure.

*Females ages 25–64 have lower labor force participation rates than males, regardless of education, but participation increases with education.*

In 2001, females ages 25–64 had lower labor force participation rates than males at all levels of education in the United States. This difference was also evident in other selected large, industrialized countries, such as Canada, France, Germany, Italy, and the United Kingdom (*indicator 37*). However, the percentage of females participating in the labor force increased in all six countries between 1995 and 2001, while the percentage of males stayed the same or decreased. Female labor

force participation rates also generally increased with educational attainment.

*Females are more likely than males to participate in adult education.*

Women not only have made important progress in terms of their formal educational attainment, but also have been actively involved in adult education activities. In 2001, the overall participation rate of females in adult education activities was higher than that of their male peers (53 percent vs. 46 percent; *indicator 32*). However, when examined by type of activity, the only significant gender difference was in participation in personal development activities. The percentages of males and females who participated in basic skills and work-related adult education were similar.

## Conclusion

Various indicators have been presented here to examine the extent to which males and females have access to similar educational opportunities, take advantage of those opportunities, and have similar educational outcomes. By most of these measures, females are doing at least as well as males.

Males and females begin school with similar preschool experiences, although females may have an advantage in early literacy participation experiences. Females outperform males on reading and writing assessments at fourth-, eighth-, and twelfth-grades. Throughout their elementary and secondary education, females are less likely than males to repeat grades and seem to have fewer problems that put them at risk.

While females' performance in mathematics is often perceived to be lower than that of males, NAEP results have shown few consistent gender differences over the years, particularly among younger students. Twelfth-grade NAEP assessments in mathematics and science show no significant gender differences in achievement scores. However, females were less likely to report liking math or science. This is true despite the fact that young women take equally or more challenging mathematics and science coursework than their male peers in high school (with the exception of physics, which females are slightly less likely than males to take).

Since the early 1970s, women have made gains in postsecondary education in terms of enrollment and attainment. Female high school seniors tend to have higher educational aspirations than their male peers and are more likely to enroll in college immediately after graduating from high school. Females also account for the majority of undergraduate enrollment and the majority of bachelor's degree recipients.

Gender differences in college majors persist, however, with females still predominant in somewhat lower paying fields like education, and males more likely to earn degrees in engineering, physics, and computer science. Females are also still underrepresented in first-professional programs, although they have made substantial progress toward parity in the past 30 years.

In terms of labor market outcomes, the findings are mixed and depend somewhat on factors beyond the scope of the education system. Females ages 25–34 are less likely than their male counterparts to be employed, but it is unknown to what extent this is by choice. The gap between males and females in employment rates has narrowed over time, and females with higher levels of educational attainment are employed at rates more similar to those of males than are females with lower levels of attainment. Females tend to earn less than males with similar educational attainment, but this may be partly a reflection of different patterns of labor market participation and job choice.

### Technical Note

Unless otherwise noted, all statements cited in the text about differences between two or more groups or changes over time were tested for statistical significance and substantive difference using equivalency tests. All statements were tested for statistical significance at the .05 level. Several test procedures were used, depending on the type of data interpreted and the nature of the statement tested. The most commonly used test procedures were *t* tests, linear trend tests, regression analyses, and equivalence tests. *t* tests were not adjusted to compensate for multiple comparisons being made simultaneously. Trend tests were conducted by evaluating the significance of the slope of a simple regression of the annual data points, and a *t* test comparing the end points. Regression analyses to evaluate the relationship of multiple independent variables upon one dependent variable involved procedures that addressed the impact of complex sample designs upon the statistical tests. Equivalence tests were used to determine whether two statistics are substantively equivalent or substantively different. This is accomplished by using a hypothesis test to determine whether the confidence interval of the difference between sample estimates is significantly greater or less than a pre-set delta. The delta value is the magnitude of the difference required for the estimates to be judged substantively different. In most cases involving percentages, a delta, or difference, of 3.0 was used to determine substantive equivalence or difference. In some indicators involving only very small percentages, a lower delta was used. In contrast, for other indicators involving only relatively large values a larger delta was used, such as a delta of \$1,000 used in the case of annual salaries.





## PREPRIMARY AND EARLY ELEMENTARY EDUCATION

1. Preprimary and Kindergarten Enrollment
2. Reading at Home
3. Early Reading and General Knowledge Achievement
4. Early Mathematics Achievement



## 1. Preprimary and Kindergarten Enrollment

*Preprimary and kindergarten enrollment increased for both males and females between 1990 and 2001.*

Research on the relationship between children's early care and education and school readiness has shown the potential importance of enriching learning experiences for young children, and the positive outcomes of some early intervention programs for educationally disadvantaged children in particular (Love, Schochet, and Meckstroth 1996; Barnett 1995; Haskins 1989). Between 1990 and 2001, the total percentages of 3- to 5-year-olds enrolled in preprimary and kindergarten increased. In 2001, similar percentages of males (63 percent) and females (64 percent) were enrolled in preprimary and kindergarten education.

Among 3- to 5-year-olds in 2001, White females were less likely than Black females to be enrolled in preprimary programs. Furthermore, Hispanic

children, regardless of sex, were less likely to be enrolled compared to Black children.

Enrollment varied by parental income as well; males whose parents' income was in the highest 20 percent were more likely than their peers in the lowest 60 percent to be enrolled in preprimary programs. Females whose parents' income was in the highest 20 percent were more likely than any of their female peers to be enrolled in preprimary programs.

In 2001, higher percentages of older students were enrolled in preprimary and kindergarten programs compared to younger students; 39 percent of 3-year-olds were enrolled in preprimary programs, compared to 66 percent of 4-year-olds and 87 percent of 5-year-olds.

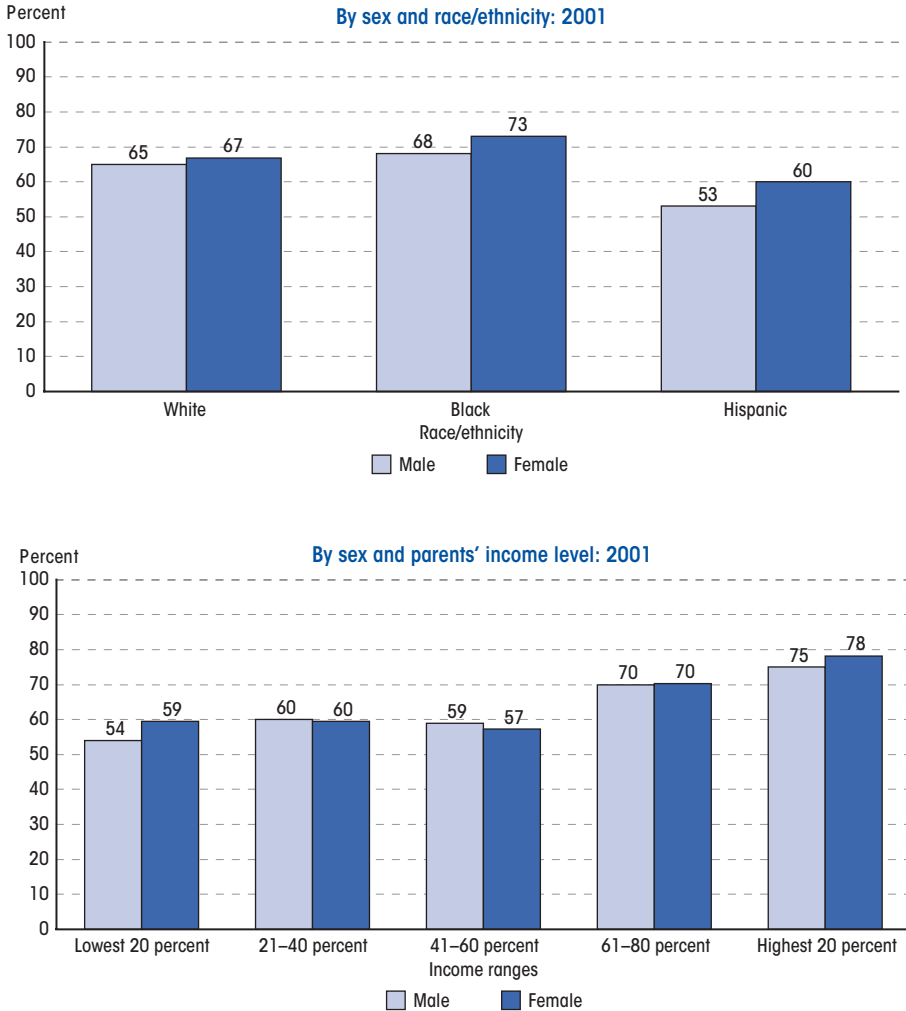
**Table 1. Percent of 3- to 5-year-olds enrolled in preprimary school and kindergarten, by sex: Various years, 1990 to 2001**

Year	Total	3-year-olds	4-year-olds	5-year-olds
<b>Total</b>				
1990	59.4	32.6	56.1	88.8
1995	61.8	35.9	61.6	87.5
2000	64.0	39.2	64.9	87.6
2001	63.9	38.6	66.4	86.7
<b>Male</b>				
1990	59.5	32.5	55.3	89.3
1995	61.9	35.8	62.8	85.9
2000	63.2	37.3	64.3	87.5
2001	63.4	38.1	65.6	86.8
<b>Female</b>				
1990	59.3	32.8	56.8	88.2
1995	61.8	36.0	60.3	89.3
2000	64.9	41.2	65.5	87.8
2001	64.4	39.1	67.3	86.6

NOTE: This analysis includes 3- to 5-year-olds who were not enrolled in first grade.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 2001 supplement, unpublished data.

**Figure 1. Percent of 3- to 5-year-olds enrolled in preprimary school and kindergarten, by sex, race/ethnicity, and parental income: 2001**



NOTE: This analysis includes 3- to 5-year-olds who were not enrolled in first grade. The income ranges are defined as: Lowest 20 percent = \$9,968 and less; 21-40 percent = \$9,969 to \$26,980; 41-60 percent = \$26,981 to \$44,453; 61-80 percent = \$44,454 to \$71,865; and Highest 20 percent = \$71,866 and above.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 2001 supplement, unpublished data.

## 2. Reading at Home

*Among 3- to 5-year-olds in 2001, females were more likely than males to be read to by a family member frequently.*

Participating in early literacy activities provides valuable developmental experiences for young children (Snow, Burns and Griffin 1998; Moss and Fawcett 1995). In both 1993 and 1996, generally similar percentages of males and females ages 3-5 participated in early literacy activities with a parent or family member, such as being read to (three or more times in the past week), being told a story (at least once in the past week), or visiting a library (at least once in the past month). However, in 1999, higher percentages of females (41 percent) than males (37 percent) had visited a library in the past month, while in 2001, higher percentages of females (86 percent) than males (82 percent) had been read to three or more times in the past week.

The percentages of both males and females who were read to three or more times in the past week or told a story at least once in the past week were higher in 2001 than 1991. Overall, in 2001, 84 percent of children were read to by a family member and 84 percent were told a story by a family member, compared to 71 percent and 72 percent, respectively, in 1991. However, there was no change in the percentage of children who visited a library with a family member during this period (36 percent).

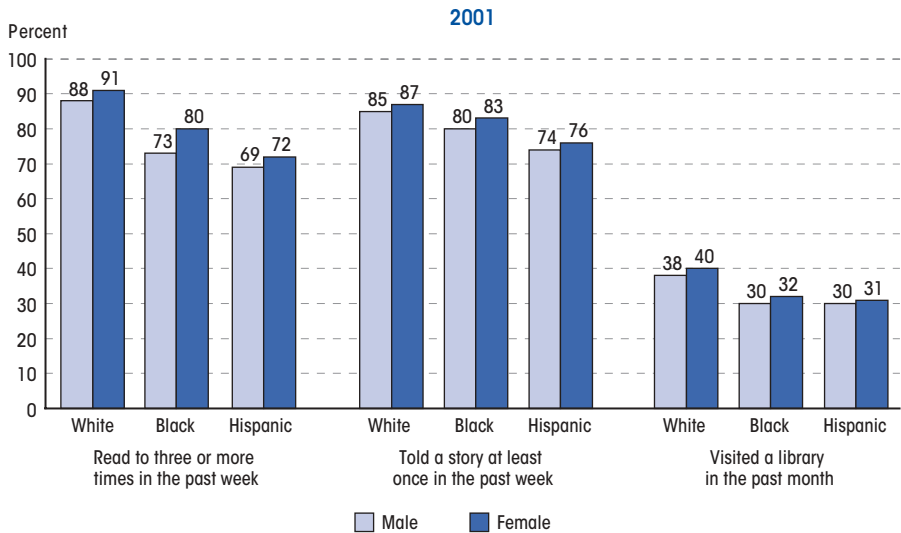
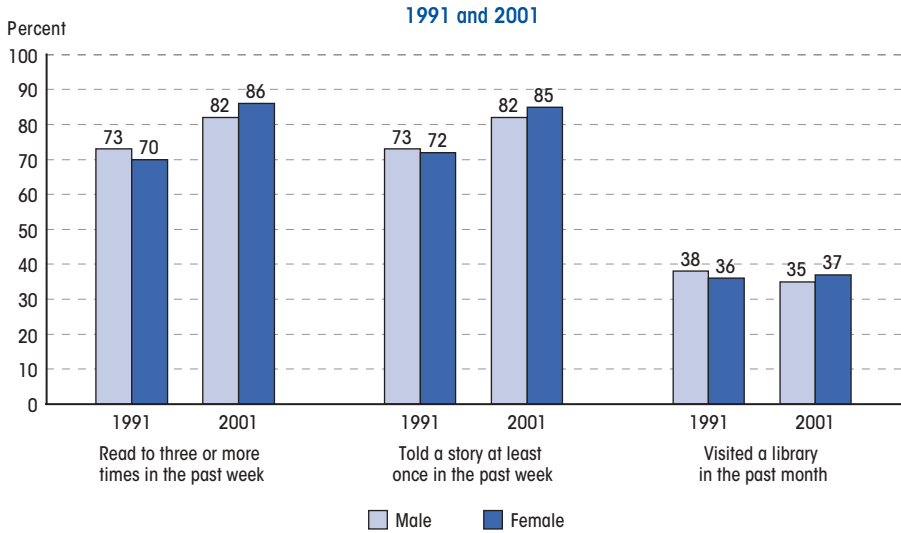
For both males and females in 2001, participation in early literacy activities showed some variation by race/ethnicity. For example, in 2001, White males and females were more likely than their Black or Hispanic peers to have been read to three or more times in the past week.

**Table 2. Percent of 3- to 5-year-olds who participated in various early literacy activities with a parent or family member, by sex and race/ethnicity: Various years, 1991 to 2001**

Sex and race/ethnicity	Read to three or more times in the past week					Told a story at least once in the past week					Visited a library in the past month				
	1991	1993	1996	1999	2001	1991	1993	1996	1999	2001	1991	1993	1996	1999	2001
Total	71.4	77.7	82.9	82.6	84.1	72.0	74.7	82.0	82.3	83.5	36.6	38.8	38.2	38.7	36.1
Male	72.6	76.9	81.5	81.7	82.1	72.5	74.1	81.7	82.6	82.4	37.6	38.3	38.3	36.8	35.2
White	78.9	83.9	87.6	89.0	87.6	73.7	75.5	83.2	85.2	85.4	41.7	41.8	43.1	39.4	37.7
Black	60.5	63.5	73.5	72.2	73.4	68.2	69.1	77.5	80.3	80.0	30.9	30.7	31.7	33.2	30.1
Hispanic	54.9	58.9	65.5	63.6	69.3	69.6	72.3	79.1	70.9	74.0	24.5	26.5	27.0	27.0	30.4
Female	70.3	78.5	84.3	83.5	86.1	71.6	75.2	82.2	81.9	84.7	35.6	39.4	38.0	40.6	37.1
White	76.5	84.0	90.3	88.8	91.2	73.9	75.7	84.6	83.2	86.9	39.8	42.5	41.9	43.3	39.9
Black	57.6	70.5	78.1	77.9	79.8	63.8	75.6	75.8	78.0	82.5	24.7	33.3	36.3	36.1	32.1
Hispanic	51.3	61.7	65.0	66.6	72.2	67.4	70.7	79.5	78.9	76.1	24.4	29.4	24.6	32.1	30.5

NOTE: This analysis includes 3- to 5-year-olds who were not enrolled in first grade. Totals include children from other racial/ethnic groups not shown. SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Education Survey of the National Household Education Surveys Program (NHES), ECE-NHES:1991; School Readiness Survey, SR-NHES:1993; Parent and Family Involvement in Education/Civic Involvement PFI/CI-NHES: 1996; Parent Program Participation Survey, Parent-NHES:1999; and the Early Childhood Program Participation Survey, ECPP-NHES: 2001.

**Figure 2. Percent of 3- to 5-year-olds who participated in various early literacy activities with a parent or family member, by sex and race/ethnicity: 1991 and 2001**



NOTE: This analysis includes 3- to 5-year-olds who were not enrolled in first grade.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Education Survey of the National Household Education Surveys Program (NHES), ECE-NHES:1991; and Early Childhood Program Participation Survey, ECPP-NHES: 2001.

### 3. Early Reading and General Knowledge Achievement

*In kindergarten and first grade, males and females generally perform similarly on assessments of general knowledge. In reading, females perform higher than males by the spring of first grade on word recognition, but males catch up by third grade.*

Children who began kindergarten in 1998 demonstrated significant score increases on assessments of general knowledge (knowledge of their surrounding social and physical world) between the beginning of kindergarten and spring of first grade. Students also experienced significant growth within a single school year. Both kindergartners and first-graders had higher scores when assessed toward the end of the school year compared to their scores in the fall. Males and females performed similarly on the general knowledge assessments throughout kindergarten and first grade.

Overall performance in kindergarten and first-grade reading was significantly higher during the spring assessments of each year compared to performance in the fall. For example, between fall and spring assessments, the average score on the first-grade reading assessment increased by 23 points. Males and females generally performed similarly in overall reading comprehension throughout kindergarten and first grade. However, higher percentages of females (80 percent) than males (73 percent) could recognize words by sight in the spring of first grade. In the spring of third grade, most (99 percent) of both males and females could recognize words by sight.

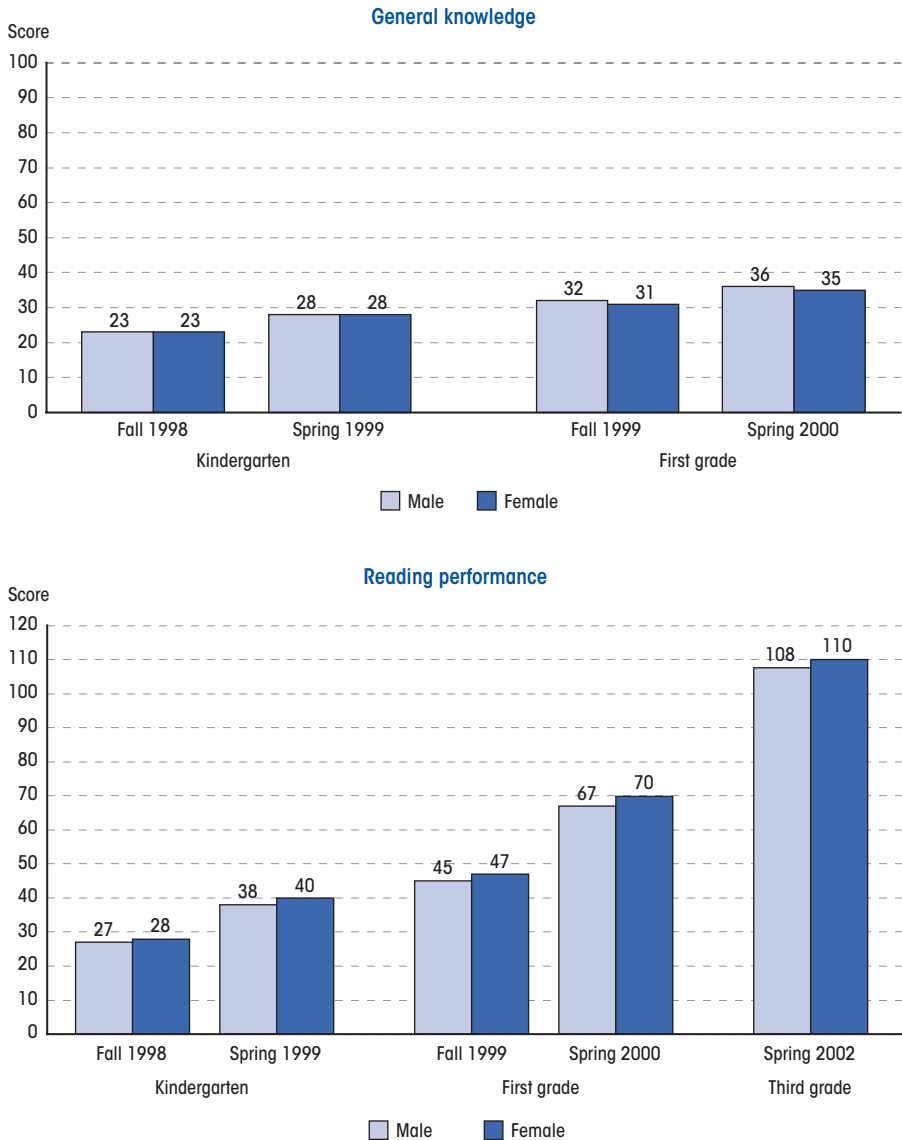
**Table 3. Reading and general knowledge scores in kindergarten, first grade, and third grade, by child's sex and race/ethnicity: Fall 1998, spring 1999, fall 1999, spring 2000, and spring 2002**

Sex and race/ethnicity	General knowledge performance				Reading, overall performance				
	Kindergarten		First grade		Kindergarten		First grade		Third grade
	Fall 1998	Spring 1999	Fall 1999	Spring 2000	Fall 1998	Spring 1999	Fall 1999	Spring 2000	Spring 2002
Total	22.9	27.9	31.1	35.7	27.6	39.0	45.5	68.3	108.9
Male	23.2	28.2	31.6	36.2	27.1	38.2	44.6	66.8	107.6
Female	22.5	27.5	30.6	35.2	28.0	39.9	46.5	69.8	110.2
<b>Male</b>									
White	25.2	30.4	33.7	37.9	28.2	39.5	46.3	69.6	111.3
Black	18.5	22.9	26.5	31.7	24.4	34.9	40.3	58.8	97.5
Hispanic	20.6	26.2	29.1	34.6	25.5	36.0	41.5	63.3	104.0
<b>Female</b>									
White	24.7	29.6	32.8	37.3	29.5	41.9	48.6	73.0	114.2
Black	17.8	22.7	25.8	30.4	25.4	35.8	41.9	63.4	101.2
Hispanic	19.2	24.9	27.5	32.6	24.8	36.6	42.9	64.7	106.4

NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in English for the general knowledge, reading, and mathematics assessments. A general knowledge assessment was not administered in the spring of 2002. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002. The reading scale range is 0 to 154. The general knowledge scale range is 0 to 51.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.

**Figure 3. General knowledge performance scores in kindergarten and first grade and reading performance scores in kindergarten, first grade, and third grade, by sex: Fall 1998 to spring 2002**



NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in English for the general knowledge, reading, and mathematics assessments. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002. The reading scale range is 0 to 154. The general knowledge scale range is 0 to 51.

SOURCE: U.S. Department of Education, National Center for Education Statistics. Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.

## 4. Early Mathematics Achievement

*In kindergarten and first grade, males and females perform similarly on mathematics assessments.*

Kindergartners who entered in the fall of 1998 increased their overall mathematics performance scores by 10 points by the spring of their kindergarten year compared to their initial assessment. By the end of third grade, these students more than tripled their performance. With the exception of the third-grade assessment, males and females performed similarly on the overall mathematics performance. In the third grade, males scored higher than females, 87 to 83.

Across each of the assessments, White males and females had higher overall mathematics performance than both Black and Hispanic males, while White females had higher overall mathematics performance than both Black and Hispanic females. Hispanic males outperformed Black males

on the third-grade spring assessment even though they scored similarly on the initial fall kindergarten assessment. Black and Hispanic females performed similarly across both kindergarten assessments and the fall first-grade assessment. Hispanic females outperformed Black females on the third-grade spring assessment.

No differences were detected between males and females on any of the assessments of addition and subtraction skills. Between the fall assessments in kindergarten and the spring assessment in third grade, the percentage of males who demonstrated addition and subtraction skills increased from 5 to 97 percent, and the percentage of females increased from 3 to 97 percent.

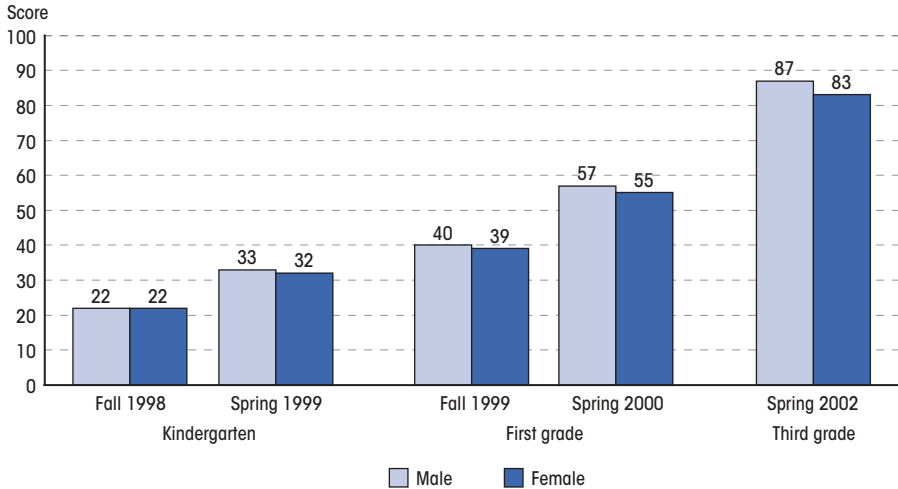
**Table 4. Mathematics scores in kindergarten, first grade, and third grades, by child's sex and race/ethnicity: Fall 1998, spring 1999, fall 1999, spring 2000, and spring 2002**

Sex and race/ethnicity	Mathematics, overall performance scale scores					Mathematics, percent with addition and subtraction skills				
	Kindergarten		First grade		Third grade	Kindergarten		First grade		Third grade
	Fall 1998	Spring 1999	Fall 1999	Spring 2000	Spring 2002	Fall 1998	Spring 1999	Fall 1999	Spring 2000	Spring 2002
Total	21.9	32.1	39.1	55.9	85.3	3.9	18.1	34.4	73.2	97.0
Male	22.3	32.5	39.6	56.8	87.4	4.7	19.1	36.1	73.1	97.3
Female	21.5	31.7	38.6	54.9	83.2	3.2	17.1	32.7	73.2	96.8
<b>Male</b>										
White	23.9	34.6	42.1	60.3	91.2	6.1	23.0	41.9	79.2	97.9
Black	18.1	27.3	33.3	47.8	76.3	1.1	9.0	21.8	56.1	95.7
Hispanic	19.9	30.2	36.5	53.1	84.4	2.2	14.0	27.5	68.2	97.4
<b>Female</b>										
White	23.2	33.9	41.1	58.2	87.0	4.0	21.0	38.8	79.0	98.1
Black	18.0	27.4	33.2	48.0	72.7	0.8	8.2	19.7	63.2	93.2
Hispanic	18.8	28.2	34.7	50.7	80.8	2.2	11.4	23.8	65.0	96.2

NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in mathematics for the general knowledge, reading, and mathematics assessments. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002. The mathematics scale ranges from 0 to 123.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.

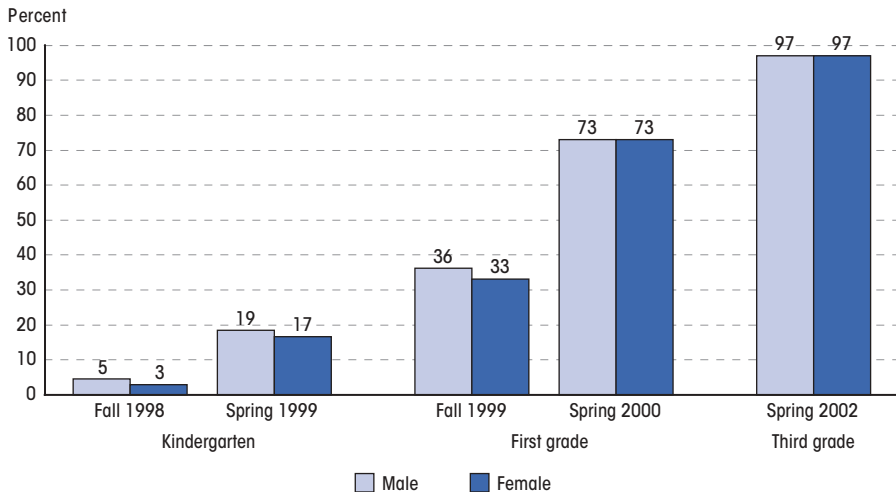
**Figure 4-A. Mathematics scores in kindergarten, first grade, and third grade, by sex: Fall 1998 to spring 2002**



NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in English for all rounds of data collection. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002. The mathematics scale ranges from 0 to 123.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.

**Figure 4-B. Percent of students with addition and subtraction skills during kindergarten, first grade, and third grade, by sex: Fall 1998 to spring 2002**



NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in English for the general knowledge, reading, and mathematics assessments. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002. The mathematics scale ranges from 0 to 123.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.







## ELEMENTARY AND SECONDARY EDUCATION

5. Reading and Writing Achievement
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7. Geography and U.S. History Achievement
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13. Student Attitudes Toward School
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16. Victimization at School
17. Student Behavior and School Violence
18. Alcohol and Other Drug Use
19. Dropouts
20. Educational Attainment of Childbearing Teens
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22. Advanced Placement Examinations

## 5. Reading and Writing Achievement

*Females outperform males on reading and writing assessments at fourth-, eighth-, and twelfth-grades.*

Scores on the main assessment of the National Assessment of Educational Progress (NAEP) reveal that, across all three grades, females have consistently outperformed males in reading since the early 1990s. The long-term trend scores from NAEP also show this pattern for previous decades.

Females continued to have higher reading scores than males at all three grades, but there were no measurable increases in females' scores when 1992 data were compared to 2003 data at grades four and eight, and there was a decrease in twelfth-grade reading scores for females—from 297 in 1992 to 295 in 2002. The data are more mixed for males. While no measurable change occurred between 1992 and 2003 for fourth-grade males, the reading scores of eighth-grade males increased from 1992 to 2003, and the reading scores of twelfth-grade males decreased from 287 in 1992 to 279 in 2002.

Although the reading scores for both female and male twelfth-graders decreased over the decade, the 8-point decrease in male scores was larger than the 2-point decrease in female scores, and resulted in a widening of the gap between male and female reading scores—from 10 points in 1992 to 16 points in 2002. By comparison, there were no measurable changes in the gaps between male and female writing scores between 1992 and 2002.

Females also outperformed males on writing assessments across grade levels in 1998 and 2002. Among fourth- and eighth-grade males and females, scores on the writing assessment improved between 1998 and 2002. However, among twelfth-graders, females' scores remained similar and males' scores declined slightly during this period.

**Table 5-A. Average scale scores in reading for fourth-, eighth-, and twelfth-graders, by sex: 1992, 1994, 1998, 2000, 2002, 2003**

Sex	1992	1994	1998	2000	2002	2003
<b>Fourth grade</b>						
Male	213	209	212	208	215	215
Female	221	220	217	219	222	222
<b>Eighth grade</b>						
Male	254	252	256	—	260	258
Female	267	267	270	—	269	269
<b>Twelfth grade</b>						
Male	287	280	282	—	279	—
Female	297	294	298	—	295	—

— Not available. Test was not administered in this year.

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Accommodations were not permitted for the 1992 and 1994 assessments. Scale score ranges from 0 to 500. For a discussion of the reading scale score definitions, please see <http://nces.ed.gov/nationsreportcard/reading/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, 2002, and 2003 Reading Assessments.

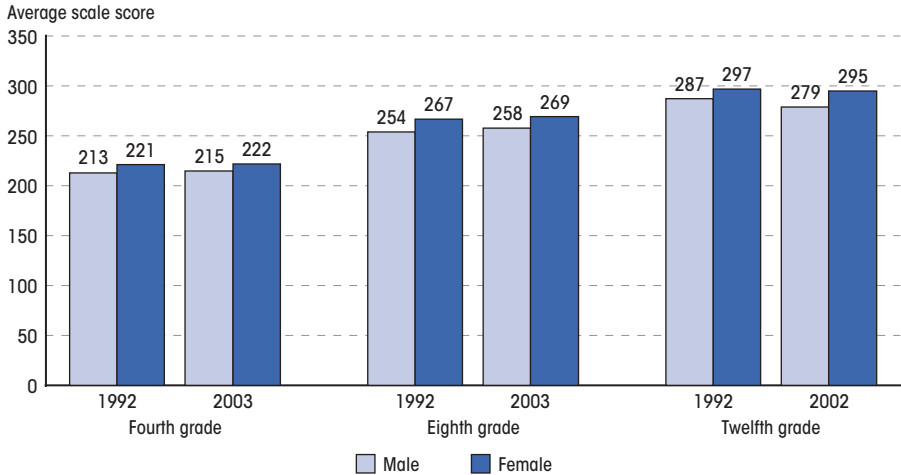
**Table 5-B. Average scale scores in writing for fourth-, eighth-, and twelfth-graders, by sex: 1998 and 2002**

Grade	1998		2002	
	Male	Female	Male	Female
Fourth grade	142	158	146	163
Eighth grade	140	160	143	164
Twelfth grade	140	159	136	160

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Scale ranges from 0 to 300, with a national average of 150. See *The Nation's Report Card: Writing 1998 and 2002* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1998 and 2002 Writing Assessments.

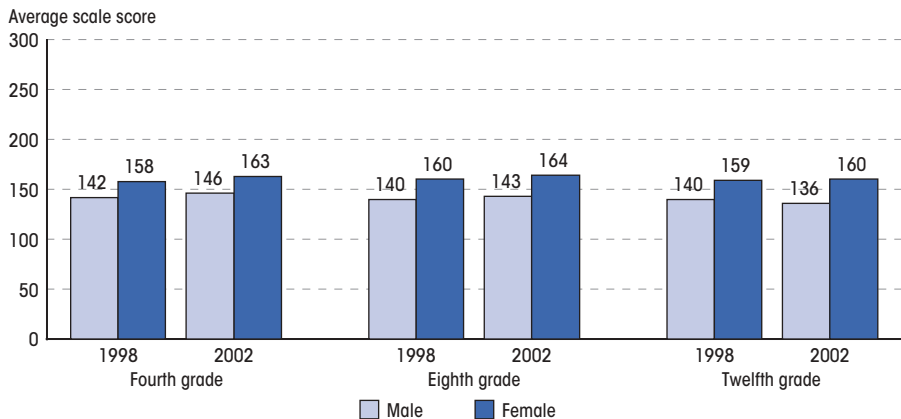
**Figure 5-A. Average scale scores in reading for fourth-, eighth- and twelfth-graders, by sex: 1992, 2002, and 2003**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP). Accommodations were not permitted for the 1992 assessment. Scale ranges from 0 to 500. For a discussion of the reading scale score definitions, please see <http://nces.ed.gov/nationsreportcard/reading/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 2002, and 2003 Reading Assessments.

**Figure 5-B. Average scale scores in writing for fourth-, eighth-, and twelfth-graders, by sex: 1998 and 2002**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 300, with a national average of 150. See *The Nation's Report Card: Writing 2002* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Writing Assessments.

## 6. Mathematics and Science Achievement

*Gender differences in mathematics and science achievement have not been consistent across years and grade groups.*

Scores on the main assessment of the National Assessment of Educational Progress (NAEP), administered between 1990 and 2003, show that gender differences in mathematics and science have not been consistent across years and grade groups.

In mathematics, the gender differences between average scale scores have been quite small and fluctuated only slightly between 1990 and 2003.

Trends in science scores have been different. Among fourth- and eighth-graders, males scored higher than females on the 2000 science assessment, but not on the 1996 assessment. In contrast, among twelfth-graders, males outperformed females on the 1996 assessment, but there was no measurable difference on the 2000 assessment. The score gap between males and females increased between 1996 and 2000 at the fourth and eighth grades, but there was no measurable difference in the size of the gap at twelfth grade.

**Table 6-A. Average scale scores in mathematics for fourth-, eighth-, and twelfth-graders, by sex: 1990, 1992, 1996, 2000, and 2003**

Sex	1990	1992	1996	2000	2003
<b>Fourth grade</b>					
Male	214	221	224	227	236
Female	213	219	223	224	233
<b>Eighth grade</b>					
Male	263	268	271	274	278
Female	262	269	269	272	277
<b>Twelfth grade</b>					
Male	297	301	305	303	—
Female	291	298	303	299	—

—Not available. Test was not administered in this year.

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Accommodations were not permitted in 1990 and 1992. Scale ranges from 0 to 500. For a discussion of the mathematics scale score definitions, please see <http://nces.ed.gov/nationsreportcard/mathematics/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 2000, and 2003 Mathematics Assessments.

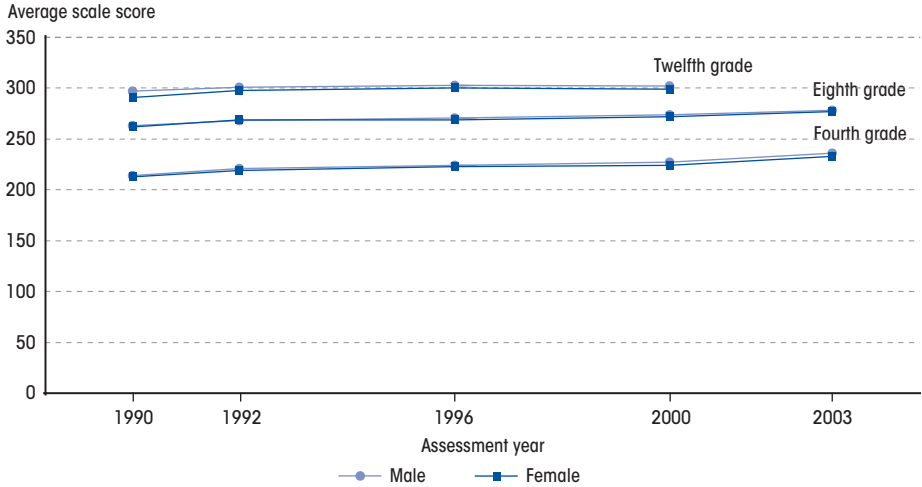
**Table 6-B. Average scale scores in science, for fourth-, eighth-, and twelfth-graders, by sex: 1996 and 2000**

Grade	1996		2000	
	Male	Female	Male	Female
Fourth grade	151	149	153	147
Eighth grade	151	149	154	147
Twelfth grade	152	148	148	145

NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 300. For a discussion of the science scale score definitions, please see <http://nces.ed.gov/nationsreportcard/science/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Science Assessments.

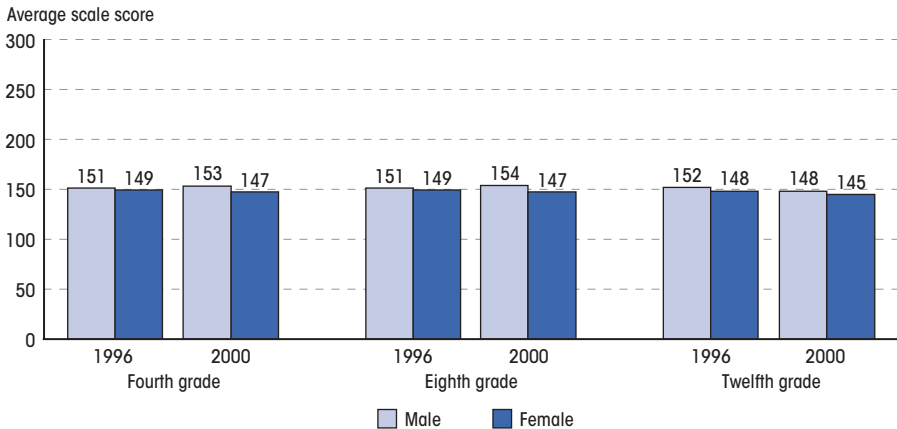
**Figure 6-A. Average scale scores in mathematics for fourth-, eighth-, and twelfth-graders, by sex: 1990, 1992, 1996, 2000, and 2003**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. Accommodations were not permitted for the 1990 and 1992 assessments. For a discussion of the mathematics scale score definitions, please see <http://nces.ed.gov/nationsreportcard/mathematics/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 2000, and 2003 Mathematics Assessments.

**Figure 6-B. Average scale scores in science for fourth, eighth-, and twelfth-graders, by sex: 1996 and 2000**



NOTE: These test scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 300. For a discussion of the science scale score definitions, please see <http://nces.ed.gov/nationsreportcard/science/scale.asp>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1996 and 2000 Science Assessments.

## 7. Geography and U.S. History Achievement

*There were no gender differences detected in U.S. history scores, but males outperform females in geography.*

Geography and U.S. history assessments are relatively recent additions to the National Assessment of Educational Progress program; assessments of fourth-, eighth-, and twelfth-graders in these subjects were conducted first in 1994 and again in 2001. Among fourth-, eighth-, and twelfth-graders, there were no measurable changes detected between 1994 and 2001 in the average geography scores of males or females. In both years, males in fourth, eighth, and twelfth grades had higher average geography scores than their female peers.

In U.S. history, the pattern of performance varied somewhat by grade level and gender. Fourth- and eighth-grade males had higher average scores in 2001 than in 1994, as did fourth-grade females. However, twelfth-grade males and females in 2001 did not score higher than twelfth-grade males and females in 1994. No gender differences were detected in U.S. history scores at any of the three grade levels in 2001.

**Table 7-A. Average scale scores in geography for fourth-, eighth-, and twelfth-graders, by sex: 1994 and 2001**

Grade	1994			2001		
	Total	Male	Female	Total	Male	Female
Fourth grade	206	208	203	209	212	207
Eighth grade	260	262	258	262	264	260
Twelfth grade	285	288	281	285	287	282

NOTE: These assessment scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. See *The Nation's Report Card: Geography 2001* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments.

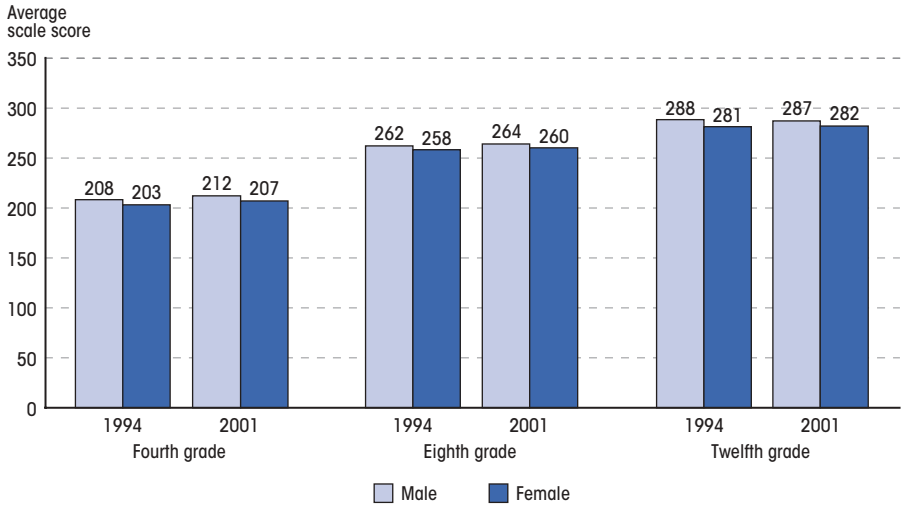
**Table 7-B. Average scale scores in U.S. history for fourth-, eighth-, and twelfth-graders, by sex: 1994 and 2001**

Grade	1994			2001		
	Total	Male	Female	Total	Male	Female
Fourth grade	205	203	206	209	209	209
Eighth grade	259	259	259	262	264	261
Twelfth grade	286	288	285	287	288	286

NOTE: These assessment scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. See *The Nation's Report Card: U.S. History 2001* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 U.S. History Assessments.

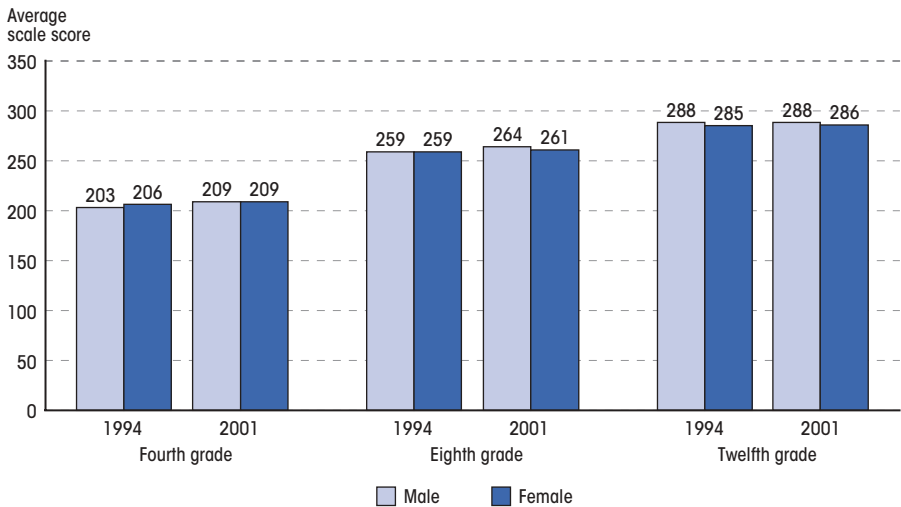
**Figure 7-A. Average scale scores in geography for fourth-, eighth-, and twelfth-graders, by sex: 1994 and 2001**



NOTE: These assessment scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. See *The Nation's Report Card: Geography 2001* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 Geography Assessments.

**Figure 7-B. Average scale scores in U.S. History for fourth-, eighth-, and twelfth-graders, by sex: 1994 and 2001**



NOTE: These assessment scores are from the National Assessment of Educational Progress (NAEP) Main Assessment. Scale ranges from 0 to 500. See *The Nation's Report Card: U.S. History 2001* for further score descriptions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 and 2001 U.S. History Assessments.



## 8. International Reading Performance of Fourth-Graders

*In participating G8 countries, fourth-grade girls scored significantly higher than boys on the combined reading literacy assessment.*

The Progress in International Reading Literacy Study (PIRLS) 2001 is designed to assist participating countries in monitoring the reading literacy of fourth-graders. In 2001, 35 countries participated in PIRLS, including seven of the G8 countries. In participating G8 countries, fourth-grade girls scored significantly higher than boys on the combined reading literacy scale. In the United States, girls scored an average of 18 points higher. Among G8 countries, the difference ranged from 22 points in England to 8 points in Italy.

PIRLS 2001 also assessed boys and girls on two separate subscales: literary and informational. On the literary subscale, girls in every participating G8 country scored higher than boys. On average for all participating countries, girls scored 21 points higher than boys on the literary subscale and an average of 18 points higher on the informational subscale. U.S. students had average differences of 16 points on both subscales.

**Table 8. Fourth-graders' average scores for the combined literacy scale, literary subscale, and informational subscale in G8 countries, by sex and country: 2001**

Country	Combined reading literacy scale			Literary subscale			Informational subscale		
	Female	Male	Female-male difference	Female	Male	Female-male difference	Female	Male	Female-male difference
Canada (O, Q) <sup>1,2</sup>	553	535	17	554	535	19	549	534	16
England <sup>3,4</sup>	564	541	22	574	544	30	554	537	17
France	531	520	11	524	513	11	540	527	12
Germany	545	533	13	544	529	14	543	533	10
Italy	545	537	8	549	538	11	539	533	6
Japan <sup>5</sup>	—	—	—	—	—	—	—	—	—
Russian Federation <sup>4</sup>	534	522	12	531	517	14	536	527	9
Scotland <sup>3</sup>	537	519	17	538	519	19	534	520	14
United States <sup>3</sup>	551	533	18	558	542	16	541	525	16
International average <sup>6</sup>	510	490	20	511	490	21	509	491	18

— Not available.

<sup>1</sup>Canada is represented by the provinces of Ontario and Quebec (O, Q) only.

<sup>2</sup>National Desired Population does not cover all of International Desired Population because coverage falls below 65 percent.

<sup>3</sup>Met guidelines for sample participation rates only after replacement schools were included.

<sup>4</sup>National Defined Population covers less than 95 percent of National Desired Population.

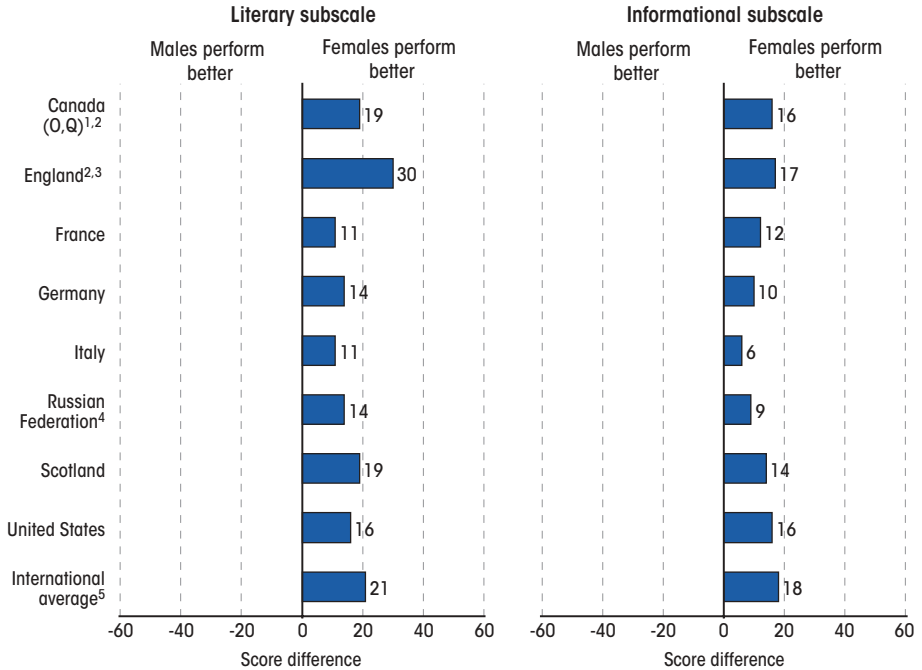
<sup>5</sup>Japan did not participate in the PIRLS assessment.

<sup>6</sup>The international average is for the 35 participating countries.

NOTE: The Group of Eight (G8) countries consist of the eight most industrialized countries in the world. Included in the G8 are: Canada, France, Germany, Italy, Japan, the Russian Federation, the United Kingdom, and the United States. The entire United Kingdom did not participate in PIRLS, but England and Scotland did participate as separate countries. Detail may not add to totals because of rounding.

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2001, IEA's Study of Reading Literacy Achievement in Primary Schools.

**Figure 8. Sex differences in fourth-graders' average scores for the literary subscale, and informational subscale in G8 countries, by country: 2001**



<sup>1</sup> Canada is represented by the provinces of Ontario and Quebec (O, Q) only.

<sup>2</sup> National Desired Population does not cover all of International Desired Population because coverage falls below 65 percent.

<sup>3</sup> Met guidelines for sample participation rates only after replacement schools were included.

<sup>4</sup> National Defined Population covers less than 95 percent of National Desired Population.

<sup>5</sup> The international average is for the 35 participating countries.

NOTE: The Group of Eight (G8) countries consist of the eight most industrialized countries in the world. Included in the G8 are: Canada, France, Germany, Italy, Japan, the Russian Federation, the United Kingdom, and the United States. The entire United Kingdom did not participate in PIRLS, but England and Scotland did participate as separate countries. Japan did not participate in the PIRLS assessment.

SOURCE: International Association for the Evaluation of Educational Achievement, 2001 Progress in International Reading Literacy Study (PIRLS), IEA's *Study of Reading Literacy Achievement in Primary Schools*.

## 9. International Reading and Mathematics Performance of 15-Year-Olds

*Across OECD countries, females outperform males in reading, while, to a lesser extent, males tend to outperform females in mathematics.*

In each of the 28 OECD countries that participated in the Program for International Student Assessment (PISA) in 2000, 15-year-old females outperformed their male peers in reading. The reading performance gap between females and males ranged from at or below 30 points in Korea, the United Kingdom, the United States, France, and Japan to 51 points in Finland. Conversely, in mathematics, males outperformed females in 13 of the 28 participating OECD countries; however, this was not the case in the United States. On average, the male advantage in mathematics was somewhat smaller (11 points) than the female advantage in reading (32 points).

In most participating OECD countries, males were generally more likely than females to be among the lowest performing students (those who

scored less than 335 points) in reading. In the United States, for example, 9 percent of 15-year-old males were among the low performers, compared to 4 percent of females. However, in mathematics, no differences were detected in the proportions of males and females among the lowest performing students (those who scored less than 400 points), despite the fact that males tended to outperform females overall. Therefore, much of the gender difference in mathematics is attributable to larger differences in favor of males among the higher performing students, not to a relative absence of males among the poorer performers. Indeed, in 15 of the OECD countries (but not the United States), males were more likely to be among the highest performing students (those with mean scores above 600) in mathematics, while in no country was the same true for females.

**Table 9. Performance of 15-year-olds in reading and mathematics, by sex and selected industrialized country: 2000**

Country	Reading performance						Mathematics performance					
	Mean score		Percent with low proficiency <sup>1</sup>		Percent with high proficiency <sup>2</sup>		Mean score		Percent with low proficiency <sup>3</sup>		Percent with high proficiency <sup>4</sup>	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
OECD average	485	517	8.0	3.7	7.2	11.9	506	495	15	16	18	14
Canada	519	551	3.3	1.3	12.9	21.0	539	529	6	6	25	19
Finland	520	571	2.5	1.0	11.0	25.5	537	536	5	4	22	21
France	490	519	6.0	2.3	6.4	10.5	525	511	10	11	21	15
Germany	468	502	12.6	6.8	6.7	11.1	498	483	18	21	16	12
Italy	469	507	8.0	2.5	3.7	7.0	462	454	25	26	6	4
Japan	507	537	4.4	1.1	7.5	12.1	561	553	6	4	36	28
Korea	519	533	1.3	0.5	4.4	7.4	559	532	4	6	32	21
Russian Federation	443	481	12.9	5.0	2.3	4.1	478	479	24	22	13	12
United Kingdom	512	537	5.0	2.2	13.2	18.3	534	526	8	8	25	20
United States	490	518	9.3	3.7	11.0	13.4	497	490	18	17	16	12

<sup>1</sup>Mean scores below 335 points.

<sup>2</sup>Mean scores above 625 points.

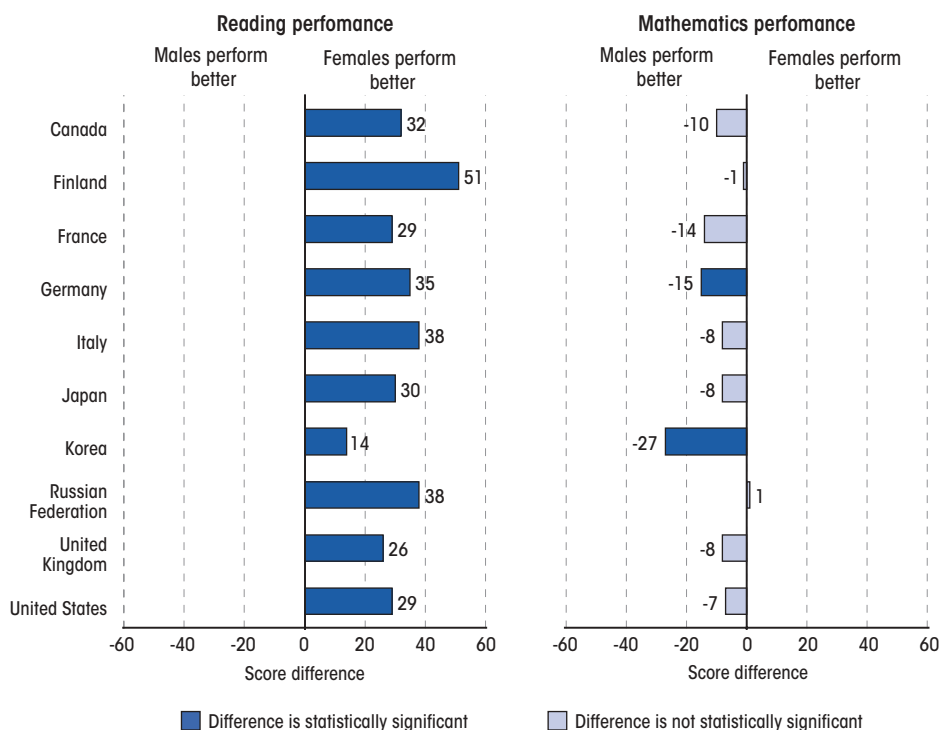
<sup>3</sup>Mean scores below 400 points.

<sup>4</sup>Mean scores above 600 points.

NOTE: The reading and mathematics scales were designed to have an average score of 500 points, with about two-thirds of students across OECD countries scoring between 400 and 600 points. The OECD average reflects the average of 27 member countries of the Organisation for Economic Co-operation and Development (OECD). The Netherlands is excluded due to low response rates. All countries shown are included in the average except the Russian Federation, which is not a member of OECD.

SOURCE: Organisation for Economic Co-operation and Development (OECD). (2001). *Knowledge and Skills for Life: First Results From the OECD Programme for International Student Assessment (PISA) 2000*.

**Figure 9-A. Sex differences in 15-year-olds' performance in reading and mathematics, by selected industrialized country: 2000**



NOTE: The reading and mathematics scales were designed to have an average score of 500 points, with about two-thirds of students across OECD countries scoring between 400 and 600 points. The Netherlands is excluded due to low response rates.

SOURCE: Organisation for Economic Co-operation and Development (OECD). (2001). *Knowledge and Skills for Life: First Results From the OECD Programme for International Student Assessment (PISA) 2000*.

## 10. Computer Use

*Computer use among elementary and secondary school males and females is similar.*

Computers play an integral role in our lives. Exposure to computers may help young people gain the computer literacy they need to function effectively in an increasingly technological society. Between 1993 and 2001, the percentage of students who used a computer at school increased by 24 percentage points, rising from 60 percent in 1993 to 84 percent in 2001. In both years, the percentages of males and females who used computers while in school were similar.

The percentage of students who reported home computer use increased by about 40 percentage points between 1993 and 2001, rising from 25 to 66 percent. In both years, the percentages of males and females who reported home computer use were similar. The percentage of students who used

their home computers to complete school assignments also increased, rising from 12 percent in 1993 to 45 percent in 2001. Males and females were similarly likely to use their home computers for schoolwork in 1997 and 2001. However, when looking at 5- through 17-year-olds, girls are slightly more likely than boys to use home computers for e-mail, word processing, and completing school assignments (NCES, *Computer and Internet Use by Children and Adolescents in 2001*). In 2001, 46 percent of females and 44 percent of males used home computers to complete schoolwork. Across all years, White students were more likely than both Black and Hispanic students to report using their home computers for schoolwork.

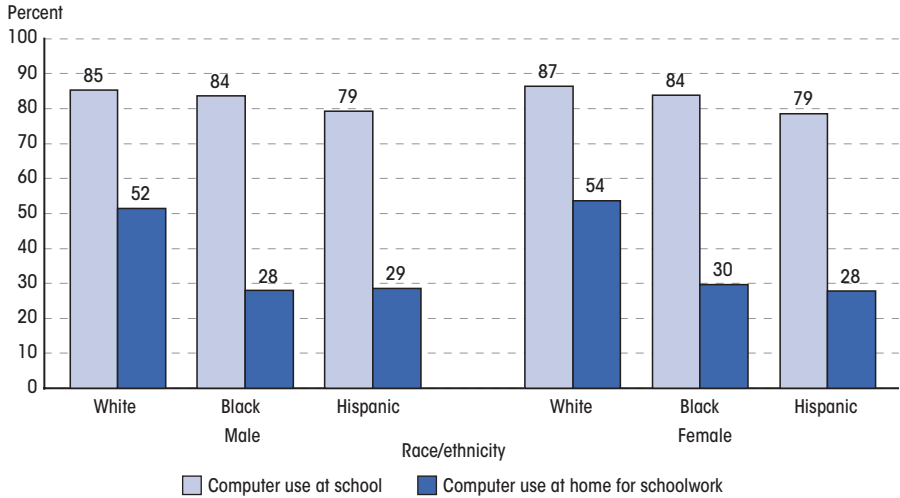
**Table 10. Percent of elementary and secondary students using computers, by age, sex, race/ethnicity, and location of use: 1993, 1997, and 2001**

Sex and race/ethnicity	October 1993	October 1997	September 2001				
	Total	Total	Total	Under 5	5 to 9 years old	10 to 14 years old	15 years old and over
<b>Percent of students using computers at school</b>							
Total	60.1	70.4	84.2	56.0	85.4	90.3	88.0
Male	59.9	71.0	83.9	55.8	85.2	90.0	87.9
White	63.8	74.3	85.3	55.9	87.3	91.0	89.2
Black	50.0	65.5	83.6	50.9	84.6	91.2	88.4
Hispanic	50.5	63.5	79.3	61.1	76.6	85.1	84.1
Female	60.5	69.9	84.5	56.3	85.6	90.6	88.2
White	63.7	73.4	86.5	55.2	89.1	92.6	89.2
Black	51.2	66.8	83.8	63.7	82.5	87.4	89.6
Hispanic	54.2	59.0	78.6	53.0	78.0	85.8	83.6
<b>Percent of students using computers at home</b>							
Total	24.5	42.8	65.8	54.2	62.1	69.3	70.7
Male	24.3	43.2	65.7	55.1	61.4	69.1	70.9
Female	24.7	42.5	65.8	53.1	62.7	69.4	70.5
<b>Percent of students using computers at home for schoolwork</b>							
Total	12.0	24.8	45.0	9.3	26.6	57.9	64.9
Male	11.4	24.7	44.3	9.6	25.7	57.0	64.5
White	14.6	30.7	51.5	9.7	29.1	67.2	74.7
Black	3.5	10.8	28.0	11.3	19.3	34.2	37.3
Hispanic	3.5	11.0	28.6	6.2	16.5	36.2	45.3
Female	12.5	24.9	45.7	8.9	27.6	58.8	65.4
White	15.7	31.9	53.7	9.2	31.6	68.9	77.1
Black	5.1	10.0	29.7	11.0	21.8	35.7	38.5
Hispanic	3.6	8.6	27.9	4.6	18.2	37.5	40.0

NOTE: Includes students enrolled in prekindergarten through grade 12, ages 3 and above. Data are based on a sample survey of households and are subject to sampling and nonsampling errors.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys, October 1993 and 1997, and September 2001.

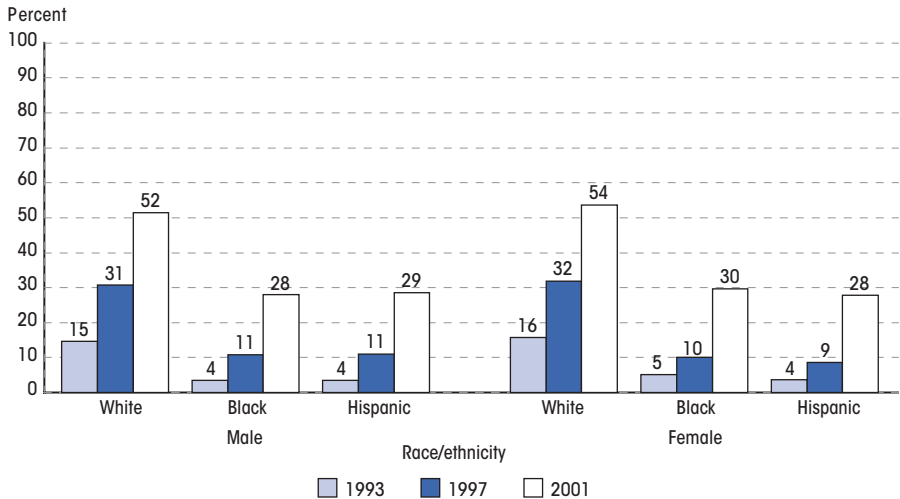
**Figure 10-A. Percent of elementary and secondary students using computers, by sex, race/ethnicity, and location of use: 2001**



NOTE: Includes students enrolled in prekindergarten through grade 12, ages 3 and above. Data are based on a sample survey of households and are subject to sampling and nonsampling errors.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys (CPS), October 1993 and 1997, and September 2001.

**Figure 10-B. Percent of elementary and secondary students using home computers for schoolwork, by sex and race/ethnicity: 1993, 1997, and 2001**



NOTE: Includes students enrolled in prekindergarten through grade 12, ages 3 and above. Data are based on a sample survey of households and are subject to sampling and nonsampling errors.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys (CPS), October 1993 and 1997, and September 2001.

## 11. Grade Retention

*Five- to 12-year-old females are less likely than males to have repeated a grade.*

Studies have shown that students who repeat at least one grade are more likely to drop out of school and therefore may have fewer opportunities to succeed in the workforce (*The Condition of Education 1997, indicator 4*). The percentage of 5- to 12-year-old males who had repeated at least one grade declined between 1996 and 1999. In 1999, females ages 5 to 12 years old were less likely than males of the same age to have repeated a grade: approximately 8 percent of males compared to 5 percent of females had repeated a grade since starting school.

In general, whether a child repeated a grade in school was related to parents' highest educational attainment level. As parents' educational attain-

ment level increased, the percentage of females who had repeated a grade decreased. Gender differences were evident within parental educational attainment categories. A higher proportion of males whose parents had completed high school, some college, or a bachelor's or higher degree had repeated at least one grade compared to females with parents with the same educational attainment. Family income was also related to students repeating grades: students from high-income families were less likely than their peers to have repeated a grade.

Regardless of sex, White students were less likely to have repeated a grade than either Black or Hispanic students.

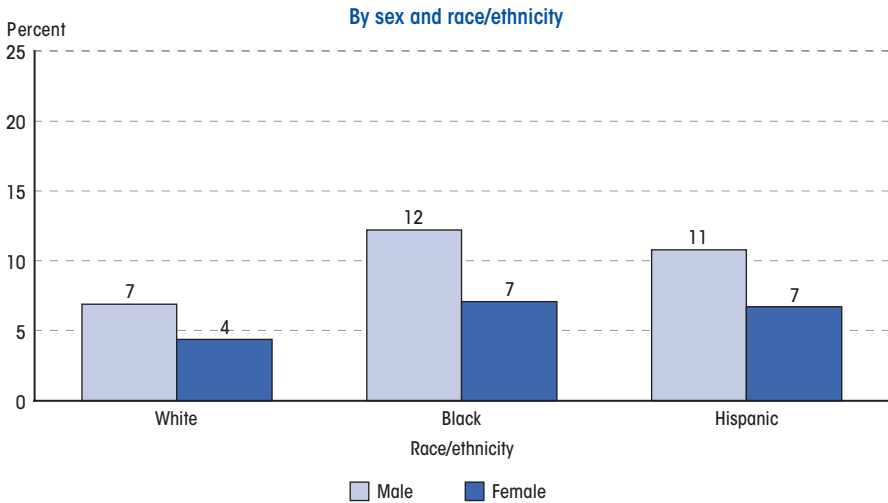
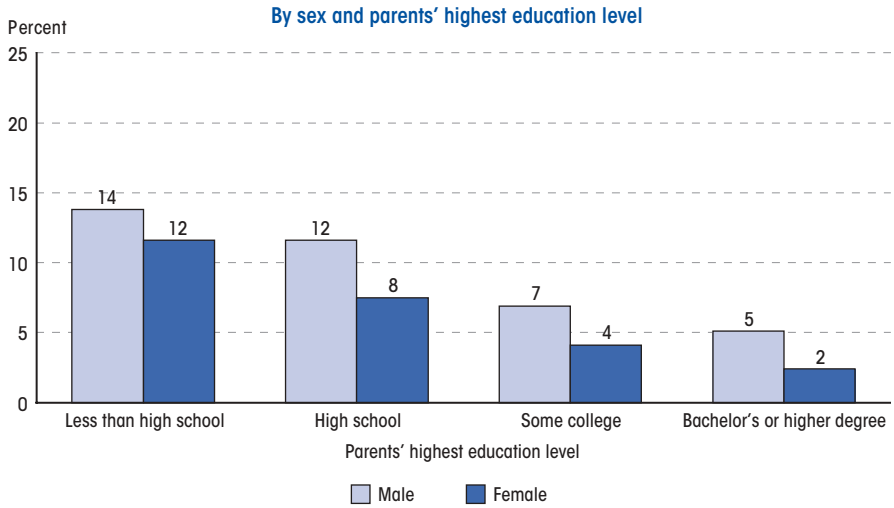
**Table 11. Percent of 5- to 12-year-old students who had repeated at least one grade since starting school, by sex and selected student characteristics: 1996 and 1999**

Selected student characteristic	Male	Female	
		1996	1999
Total	10.1	5.3	
Total	8.3	5.2	
<b>Race/ethnicity</b>			
White	6.9	4.4	
Black	12.2	7.1	
Hispanic	10.8	6.7	
<b>Family income</b>			
Low	13.8	8.5	
Middle	10.1	6.8	
High	4.5	2.6	
<b>Parents' highest education level</b>			
Less than high school	13.8	11.6	
High school	11.6	7.5	
Some college	6.9	4.1	
Bachelor's or higher degree	5.1	2.4	

NOTE: Low income is the bottom 20 percent of all incomes, high income is the top 20 percent of all incomes. Included in the totals but not shown in the income ranges are those students whose parents income was not known.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Interview Survey of the National Household Education Surveys Program, (Parent-NHES: 1999), unpublished data.

**Figure 11.** Percent of 5- to 12-year-old students who had repeated at least one grade since starting school by sex, parents' highest education level, and race/ethnicity: 1999



SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Interview Survey of the National Household Education Surveys Program (Parent-NHES: 1999), unpublished data.



## 12. Children With Disabilities

*First- to fifth-grade females are less likely than their male peers to be identified by their parents as having a disability.*

Children with disabilities face unique challenges in the educational process. For example, children with disabilities may require different educational resources than other children.

Between 1996 and 1999, the percentage of first-through fifth-graders who were identified by their parents as having a disability decreased. In both

1996 and 1999, males were more likely than females to be identified as having a disability (24 vs. 17 percent in 1996 and 21 vs. 14 percent in 1999). Specifically, males were more likely than females to be identified with a learning disability, emotional disturbance, and speech impediment.

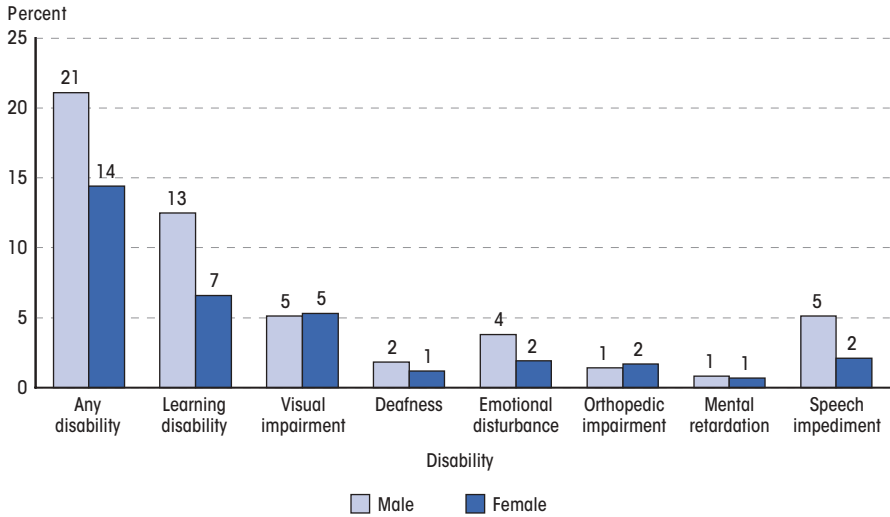
**Table 12. Percent of first- through fifth-graders with disabilities, by sex and type of disability: 1996 and 1999**

Type of disability	Total	Male	Female
<b>1996</b>			
Any disability	20.4	23.9	16.7
<b>1999</b>			
Any disability	17.8	21.1	14.4
Learning disability	9.6	12.5	6.6
Visually impaired	5.2	5.1	5.3
Deafness	1.5	1.8	1.2
Emotional disturbance	2.8	3.8	1.9
Orthopedic impairment	1.6	1.4	1.7
Mental retardation	0.8	0.8	0.7
Speech impediment	3.6	5.1	2.1

NOTE: Included in the totals but not shown separately are students with other disabling conditions. Students may be included in more than one disability category.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Interview Survey of the National Household Education Surveys Program (Parent-NHES:1996 and 1999).

**Figure 12. Percent of first- to fifth-grade students with various parent-reported disabilities, by type of disability and sex: 1999**



NOTE: Included in the totals but not shown separately are students with other disabling conditions. Students may be included in more than one disability category.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Interview Survey of the National Household Education Surveys Program (Parent-NHES:1999).

### 13. Student Attitudes Toward School

*Male and female high school seniors' attitudes toward school have become increasingly negative.*

The percentages of both male and female seniors reporting positive feelings toward school sharply declined from 1980 to 2001 with female students' positive feelings toward school declining at a faster rate. Although female high school students in 1980 were more likely than their male peers to report positive attitudes toward school, no measurable differences were detected between males and females in more recent years. In 2001, the percentages of male and female seniors who reported that they liked school very much or quite a lot were 30 and 29 percent, respectively.

In 2001, about two-thirds of seniors felt that the schoolwork assigned to them was at least sometimes meaningful and important. However, the percent of students who felt their work was seldom or never important has increased overall since 1980, from 18 to 32 percent. In both 1980

and 2001, female high school seniors were less likely to report these negative attitudes toward schoolwork than their male peers. For example, in 2001, 28 percent of females compared to 36 percent of males reported that their schoolwork was seldom important.

High school seniors' attitudes toward courses taken in school and the importance of what is learned in school later in life also vary by gender. For example, in 2001, a higher percent of female (26 percent) than male (21 percent) high school seniors reported that the courses they took in school were very exciting and stimulating or quite interesting. Similarly, females were more likely than males to report that the things they learned in school would be very important or quite important later in life (43 vs. 37 percent, respectively, reported this).

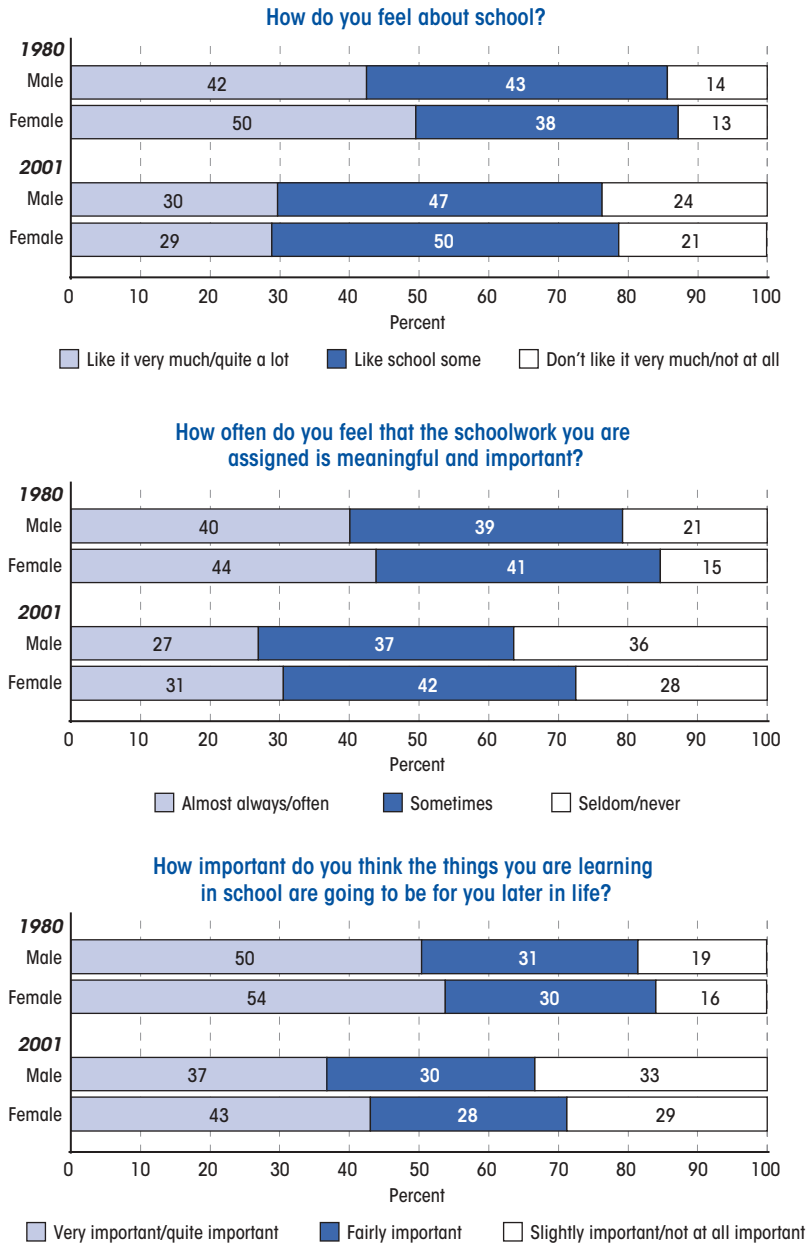
**Table 13. Percentage distribution of high school seniors who reported various attitudes toward school, by sex: 1980, 1990, and 2001**

Attitude	1980			1990			2001		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>How do you feel about school?</b>									
Like it very much/quite a lot	46.1	42.4	49.5	40.4	39.3	41.6	29.5	29.7	28.8
Like school some	40.3	43.2	37.7	42.5	43.7	41.6	48.0	46.6	49.8
Don't like it very much/not at all	13.6	14.4	12.9	17.2	17.0	16.8	22.4	23.7	21.3
<b>How often do you feel that the schoolwork you are assigned is meaningful and important?</b>									
Almost always/offen	42.2	40.1	43.8	36.2	35.2	37.0	28.8	26.9	30.5
Sometimes	39.8	39.1	40.8	41.5	41.0	42.5	39.5	36.7	42.0
Seldom/never	18.1	20.8	15.4	22.3	23.9	20.4	31.7	36.4	27.6
<b>How interesting are most of your courses to you?</b>									
Very exciting and stimulating/ quite interesting	37.9	35.4	39.8	30.4	29.6	31.6	23.6	20.8	25.6
Fairly interesting	42.3	42.4	42.6	45.5	45.4	46.1	44.1	43.7	44.9
Slightly dull/very dull	19.8	22.1	17.6	24.1	25.1	22.4	32.4	35.5	28.5
<b>How important do you think the things you are learning in school are going to be for you later in life?</b>									
Very important/quite important	52.3	50.4	53.8	44.3	45.0	43.8	40.0	36.8	43.0
Fairly important	30.4	31.0	30.2	32.5	31.9	33.4	29.0	29.8	28.2
Slightly important/not at all important	17.2	18.5	15.9	23.3	23.1	22.7	30.9	33.4	28.9

NOTE: Some categories have been collapsed. Detail may not sum to totals because of rounding. The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1980, 1990, and 2001, unpublished data.

**Figure 13. Percent distribution of high school seniors who reported various attitudes toward school, by sex: 1980 and 2001**



NOTE: The response rates for this survey do not meet NCES statistical standards. The response rates for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1980 and 2001 unpublished data.

## 14. Obesity and Physical Education Participation

*Females are less likely than males to be overweight during high school, but males are more likely to be enrolled in a high school physical education class.*

Maintaining a healthy weight and participation in exercise are important factors in determining one's overall health (U.S. Departments of Health and Human Services and Education, 2000). Females were less likely than males to be overweight or to be at risk of becoming overweight in both years. Across racial/ethnic subgroups in 2001, Black and Hispanic females were more likely to be overweight than White females, and Black females were more likely to be overweight than Hispanic females. Black and Hispanic males were also more likely to be overweight than White males.

Between 1995 and 2001, there was an increase in the percentage of both males and females who used exercise as a means to control their weight. Females were consistently more likely than males to engage in exercise as a means to control their weight. In 2001, males were more likely than females to participate in strength training and vigorous physical activity in general. In 2001, males were more likely than females to be enrolled in physical education class (56 percent vs. 48 percent).

**Table 14. Percent of high school students who were overweight, at risk for becoming overweight, and who exercised to control weight, by race/ethnicity and sex: Various years, 1995 to 2001**

Behavior and sex	1995	1997	1999	2001			
	Total	Total	Total	Total	White	Black	Hispanic
				Overweight <sup>1</sup>			
Total	—	—	9.9	10.5	8.8	16.0	15.1
Male	—	—	11.9	14.2	12.4	17.5	21.3
Female	—	—	7.9	6.9	5.3	14.6	8.8
				At risk for becoming overweight <sup>2</sup>			
Total	—	—	16.0	13.6	12.5	17.8	16.3
Male	—	—	17.5	15.5	14.9	19.0	16.3
Female	—	—	14.4	11.7	10.2	16.7	16.3
				Exercised to lose weight or avoid gaining weight <sup>3</sup>			
Total	51.0	51.5	58.4	59.9	61.9	50.1	61.5
Male	39.3	39.9	49.5	51.0	50.9	46.6	56.8
Female	63.8	65.4	67.4	68.4	72.5	53.4	66.2

—Not available.

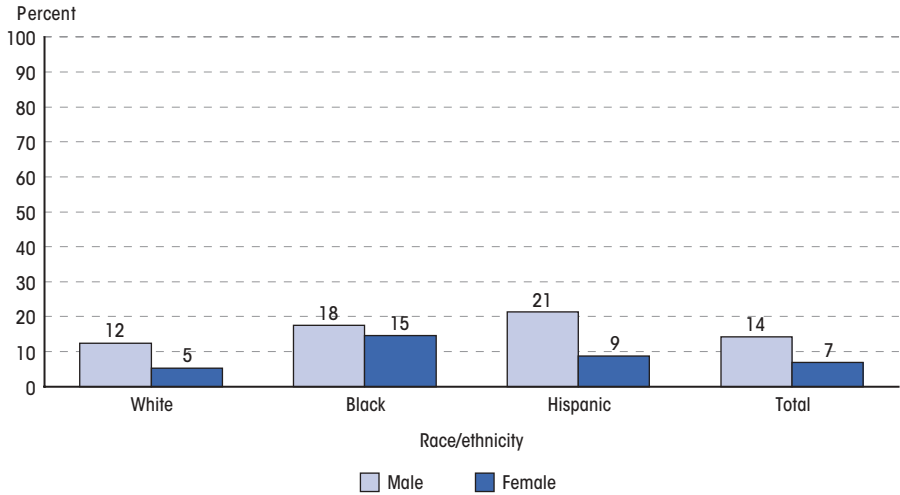
<sup>1</sup>Students in the 95th or higher percentile for body mass index by age and sex based on reference data from the National Health and Nutrition Examination Survey I. Percentiles are based on weight and height, and differ for each age level. Percent of overweight high school students is calculated from the total number of students in the 95th percentile or higher for their age group across all high school age groups.

<sup>2</sup>Students in the 85th or higher percentile but less than the 95th percentile for body mass index by age and sex based on reference data from the National Health and Nutrition Examination Survey I are considered at risk for becoming overweight.

<sup>3</sup>During the 30 days preceding the survey.

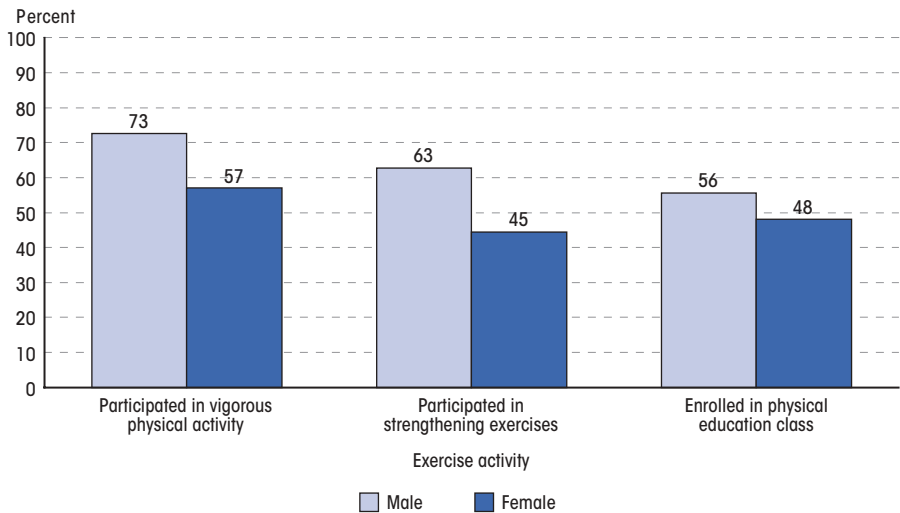
SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Youth Risk Behavior Surveillance—United States, 1995, 1997, 1999, and 2001.

**Figure 14-A. Percent of high school students who were overweight, by race/ethnicity and sex: 2001**



SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Youth Risk Behavior Surveillance—United States, 2001.

**Figure 14-B. Percent of high school students engaging in various exercise activities, by sex: 2001**



SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Youth Risk Behavior Surveillance—United States, 2001.

## 15. Afterschool Activities

*Female high school seniors are more likely than their male peers to participate in all types of afterschool activities except for athletics.*

Female seniors are more likely than their male peers to report participating in activities such as the school newspaper or yearbook, music or other performing arts, academic clubs, and student council or government. Male seniors are more likely than their female peers to report participation on athletic teams. In 2001, 19 percent of male students reported participating in music and performing arts, whereas 45 percent reported participating on athletic teams. In contrast,

roughly one-third of female seniors reported participating both in music or other performing arts and another one-third participated on athletic teams.

Between 1990 and 2001, there was little change in the percentages of males and females reporting participation in each of these afterschool activities, except for a slight increase in males' participation in music and the performing arts and females' participation in academic clubs.

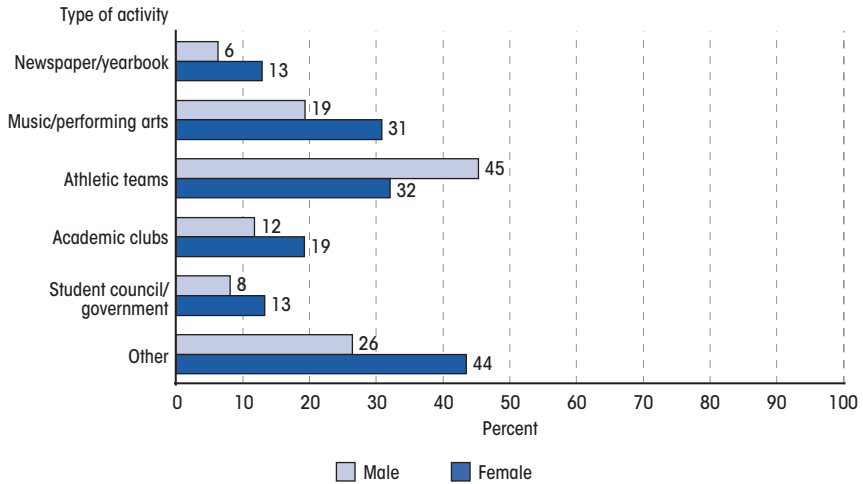
**Table 15. Percent of high school seniors who participated in various school-related activities, by sex: Various years, 1990 to 2001**

Sex and years	School-related activities					
	Newspaper/ yearbook	Music/ performing arts	Athletic teams	Academic clubs	Student council/ government	Other school clubs/activities
<b>Total</b>						
1990	9.3	22.0	35.9	13.3	11.0	34.6
1995	10.4	23.3	37.2	13.3	10.4	31.8
2000	11.0	27.6	37.0	17.1	10.9	33.1
2001	10.0	25.3	38.6	15.3	10.8	34.7
<b>Male</b>						
1990	6.3	16.5	43.2	11.7	8.9	28.2
1995	7.5	17.0	44.2	9.4	6.9	23.8
2000	6.6	22.2	45.7	15.2	7.5	24.7
2001	6.3	19.3	45.3	11.8	8.1	26.4
<b>Female</b>						
1990	12.7	28.8	27.9	15.3	13.6	42.1
1995	13.2	29.3	31.6	16.4	13.4	39.6
2000	15.0	32.5	30.1	20.2	14.3	41.7
2001	12.9	30.8	32.1	19.2	13.3	43.5

NOTE: Percentages reflect the number of seniors who responded that they participated in these activities "to a considerable extent" or "to a great extent." The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1990, 1995, 2000, and 2001.

**Figure 15. Percent of high school seniors who participated in various school-related activities during the school year, by sex: 2001**



NOTE: The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 2001.



## 16. Victimization at School

*The percentages of males and females who experienced criminal victimization at school decreased between 1995 and 2001.*

In 2001, the percentages of 12- to 18-year-old males who reported that they had experienced criminal victimization at school (6 percent) or had been bullied at school (9 percent) during the previous 6 months were higher than the percentages of females who reported each of these situations (5 percent and 7 percent, respectively).

The percentages of males and females who reported that they had experienced criminal victimization at school declined between 1995 and 2001: the percentage of male reports fell from 10 to 6 percent, while the percentage of female reports fell from 9 to 5 percent. The percentages of males and females who reported fearing attack at school and avoiding places at school also

declined during this period. However, between 1999 and 2001, the percentage of males who reported being bullied increased from 5 to 9 percent, while the percentage of females who reported being bullied increased from 5 to 7 percent.

The percentage of females who feared attack at school fell from 13 percent in 1995 to 6 percent in 2001. In 2001, similar percentages of males and females reported fearing attack at school.

In 2001, 20 percent of students ages 12–18 responded that street gangs were present at school while 36 percent of students ages 12–18 had seen hate-related graffiti at school during the previous 6 months.

**Table 16. Percent of 12- to 18-year-old students who reported criminal victimization at school during the previous 6 months, by sex and type of victimization: 1995, 1999, and 2001**

Type of victimization	1995			1999			2001		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total criminal victimization <sup>1</sup>	9.5	10.0	9.0	7.6	7.8	7.3	5.5	6.1	4.9
Theft	7.1	7.1	7.1	5.7	5.7	5.7	4.2	4.5	3.8
Violent victimization <sup>2</sup>	3.0	3.5	2.4	2.3	2.5	2.0	1.8	2.1	1.5
Serious violent victimization <sup>3</sup>	0.7	0.9	0.4	0.5	0.6	0.5	0.4	0.5	0.4
Bullied <sup>4</sup>	—	—	—	5.1	5.4	4.8	7.9	8.6	7.1

—Not available.

<sup>1</sup>Total criminal victimization is a combination of violent victimization and theft. If the student reported an incident in either, he or she is counted as having experienced "total" victimization. If the student reported having experienced both, he or she is counted once under "total" victimization.

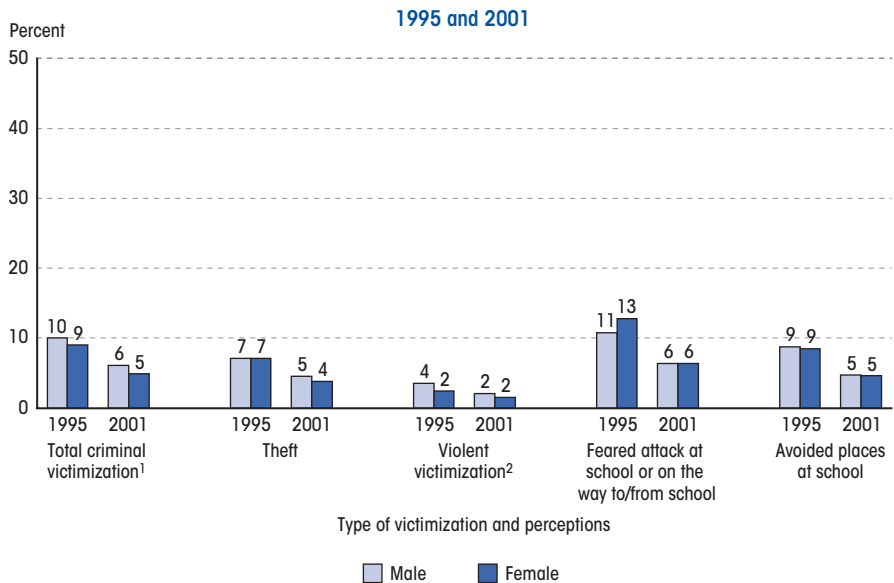
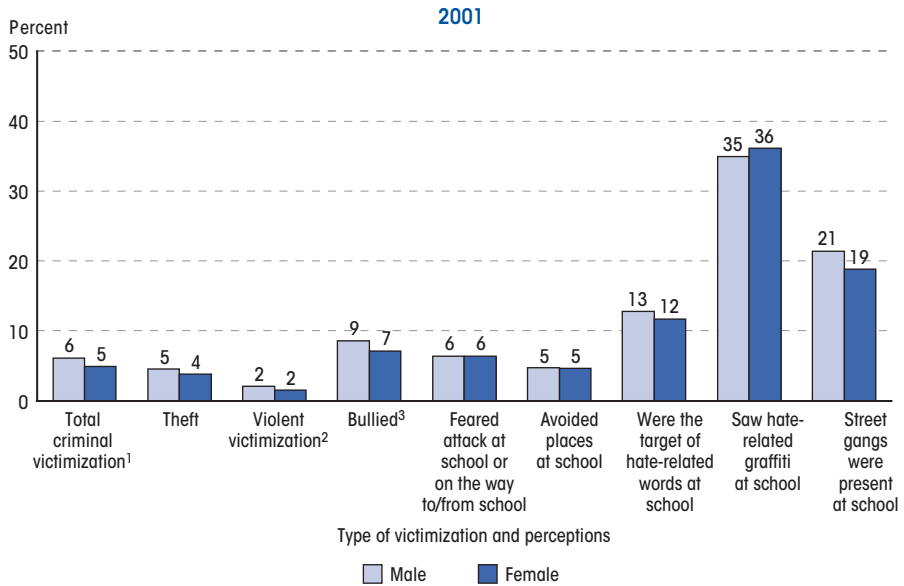
<sup>2</sup>Violent victimization includes rape, sexual assault, robbery, aggravated assault, and simple assault.

<sup>3</sup>Serious violent victimization includes rape, sexual assault, robbery, and aggravated assault.

<sup>4</sup>Students were asked if they had been bullied, that is, picked on or told to do something they didn't want to do anytime within the previous 6 months.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Indicators of School Crime and Safety: 2003*; U.S. Department of Justice, Bureau of Justice Statistics, School Crime Supplement to the National Crime Victimization Survey (NCVS), January-June 1995, 1999, and 2001.

**Figure 16. Percent of 12- through 18-year-old students who reported experiencing various types of victimization at school during the previous 6 months and who reported various perceptions of their school environments, by sex: 1995 and 2001**



<sup>1</sup>Total criminal victimization is a combination of violent victimization and theft. If the student reported an incident in either, he or she is counted as having experienced "total" victimization. If the student reported having experienced both, he or she is counted once under "total" victimization.

<sup>2</sup>Violent victimization includes rape, sexual assault, robbery, aggravated assault, and simple assault.

<sup>3</sup>Students were asked if they had been bullied, that is, picked on or told to do something they didn't want to do anytime within the previous 6 months.

NOTE: "At school" includes inside the school building, on school property, or on the way to or from school.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Indicators of School Crime and Safety (NCVS): 2003*; U.S. Department of Justice, Bureau of Justice Statistics, *School Crime Supplement to the National Crime Victimization Survey*, January-June 1995 and 2001.

## 17. Student Behavior and School Violence

*Males in grades 9 through 12 are more likely than their female peers to engage in or be associated with violent behaviors on school property.*

Among 9<sup>th</sup>- through 12<sup>th</sup>-graders in 2001, males were more likely than females to engage in or be associated with various violent behaviors on school property. For instance, higher percentages of males than females reported being in a physical fight in the previous 12 months (18 percent vs. 7 percent) and carrying a weapon to school in the previous 30 days (10 percent vs. 3 percent). Males were also more likely than females to report being threatened or injured with a weapon in the previous 12 months (12 percent vs. 7 percent). However, there were no differences detected in the percentages of males and females who reported feeling too unsafe to go to school in the previous 30 days.

In 2001, the percentage of students who reported engaging in or being associated with violent be-

haviors at school also varied by race/ethnicity. For example, Black males and females were more likely than their White peers to have been in a physical fight on school property, and Black females were more likely than White females to have carried a weapon to school. Black and Hispanic males and females were also more likely than their White peers to have felt too unsafe to go to school in 2001; among females, 6 percent of Whites reported having felt too unsafe to go to school, compared to 10 percent of Blacks and 11 percent of Hispanics.

The percentage of males who reported being in a physical fight declined from 1995 to 2001. The percentage of females who felt too unsafe to go to school increased during this period, from 4 percent in 1995 to 7 percent in 2001.

**Table 17. Percent of students in grades 9 through 12 who reported engaging in violence or being affected by violence on school property, by sex and race/ethnicity: 1995, 1999, and 2001**

Type of school violence and race/ethnicity	1995			1999			2001		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Was in a physical fight <sup>1</sup>	15.5	21.0	9.5	14.2	18.5	9.8	12.5	18.0	7.2
White	—	—	—	12.3	17.2	7.1	11.2	17.2	5.4
Black	—	—	—	18.7	19.0	18.4	16.8	21.3	12.7
Hispanic	—	—	—	15.7	20.6	10.8	14.1	17.3	11.0
Carried a weapon <sup>2</sup>	9.8	14.3	4.9	6.9	11.0	2.8	6.4	10.2	2.9
White	—	—	—	6.4	11.0	1.6	6.1	10.0	2.3
Black	—	—	—	5.0	5.3	4.8	6.3	8.4	4.2
Hispanic	—	—	—	7.9	12.3	3.7	6.4	9.1	3.8
Was threatened or injured with a weapon <sup>1</sup>	8.4	10.9	5.8	7.7	9.5	5.8	8.9	11.5	6.5
White	—	—	—	6.6	7.9	5.2	8.5	11.1	6.0
Black	—	—	—	7.6	9.0	6.4	9.3	11.9	6.7
Hispanic	—	—	—	9.8	13.1	6.6	8.9	11.3	6.4
Felt too unsafe to go to school <sup>2</sup>	4.5	4.7	4.3	5.2	4.8	5.7	6.6	5.8	7.4
White	—	—	—	3.9	3.6	4.3	5.0	4.2	5.6
Black	—	—	—	6.0	4.9	7.1	9.8	9.6	10.0
Hispanic	—	—	—	11.2	12.3	10.2	10.2	9.0	11.4

—Not available.

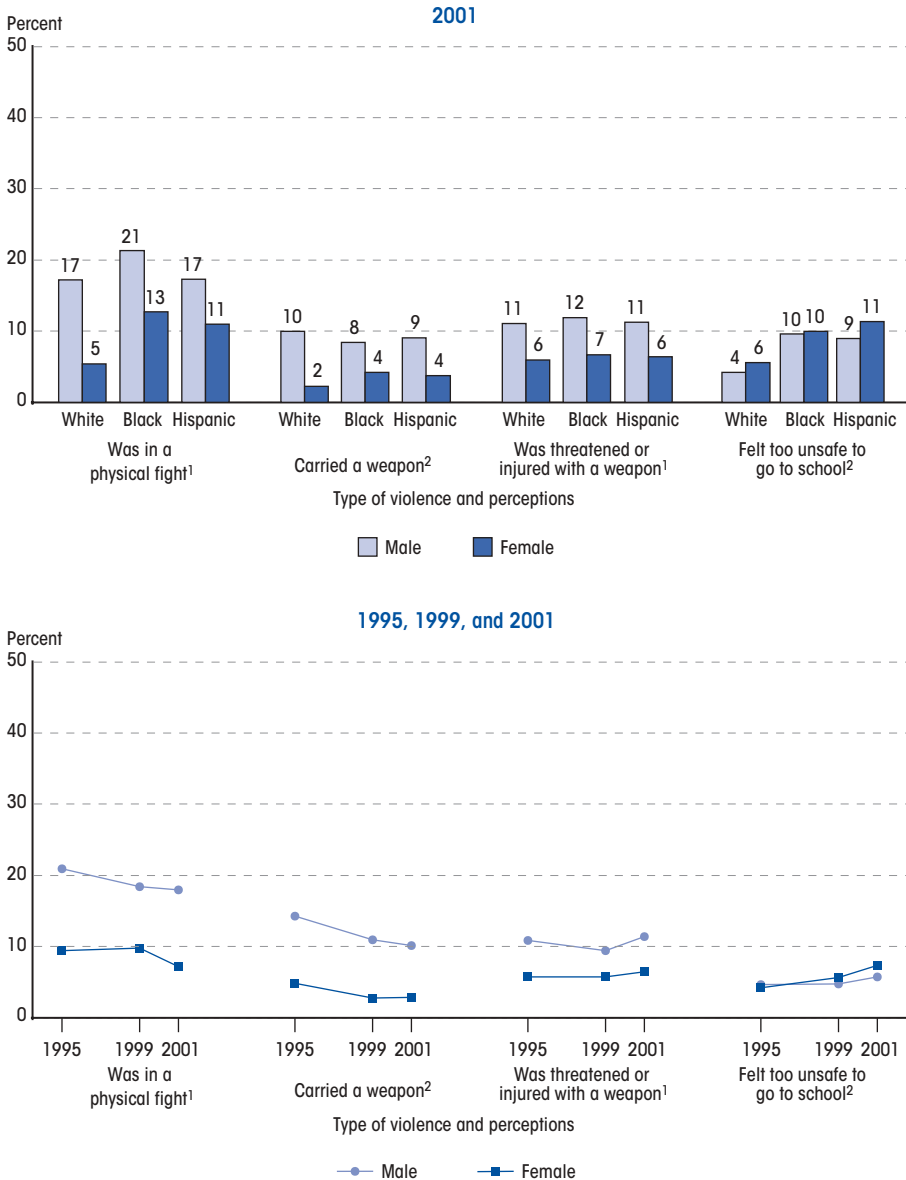
<sup>1</sup>In the previous 12 months.

<sup>2</sup>In the previous 30 days.

NOTE: The response categories for race/ethnicity changed in 1999, making comparisons of some categories with earlier years problematic. Therefore, only totals are shown for 1995. The response rate for this survey does not meet NCES standards.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System (YRBSS), "Youth Risk Behavior Survey" (YRBS), 1995, 1999, and 2001.

**Figure 17. Percent of students in grades 9 through 12 who engaged in violence or were affected by violence on school property, by race/ethnicity and sex: 1995, 1999, and 2001**



<sup>1</sup>In the previous 12 months.

<sup>2</sup>In the previous 30 days.

NOTE: The response rate for this survey does not meet NCES standards.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System (YRBSS), "Youth Risk Behavior Survey" (YRBS), 1995, 1999, and 2001.

## 18. Alcohol and Other Drug Use

*Males are more likely than females in high school to use cigarettes, alcohol, and marijuana on school property and to have been offered or given an illegal drug on school property.*

The use of alcohol and other drugs, particularly at school, may cause disruptions in the learning environment and may also lead to other crimes and misbehavior. Overall, in 2001, high school males were more likely than females to report using alcohol and marijuana anywhere at least once in the previous 30 days. Males were also more likely than females to engage in drug and alcohol use on school property; 11 percent males versus 9 percent females reported using cigarettes on school property, 6 percent males and 4 percent females reported using alcohol on school property, and 8 percent males versus 3 percent females reported using marijuana on school property. A higher percentage of males (35 percent) than females (23 percent) reported being offered, sold, or given an illegal drug on school property in the previous 12 months.

Drug and alcohol behaviors on school property varied by race/ethnicity as well. In 2001, White males and females were more likely than their Black counterparts to have reported using cigarettes and to have been offered, sold, or given an illegal drug on school property. However, Black males were more likely than White males to have reported using alcohol and marijuana on school property, while Hispanic females were more likely than White or Black females to have done so.

Overall, the percentages of students who reported using cigarettes, marijuana, and who were offered, sold, or given an illegal drug on school property decreased between 1997 and 2001. However, there was no decrease detected during this period in the percentage of students who used alcohol on school property.

**Table 18. Percent of students in grades 9 through 12 who reported use of alcohol and other drugs and engaging in drug-related behaviors anywhere and on school property, by type of behavior, sex, and race/ethnicity: 1997 and 2001**

Race/ethnicity	Cigarette use <sup>1</sup>			Alcohol use <sup>1</sup>			Marijuana use <sup>1</sup>			Offered, sold, or given an illegal drug <sup>2</sup>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Anywhere</b>												
<b>1997</b>												
Total	36.4	37.7	34.7	50.8	53.3	47.8	26.2	30.2	21.4	—	—	—
White	39.7	39.6	39.9	54.0	56.0	51.6	25.0	28.0	21.2	—	—	—
Black	22.7	28.2	17.4	36.9	39.2	34.9	28.2	35.6	21.4	—	—	—
Hispanic	34.0	35.5	32.3	53.9	56.7	50.7	28.6	33.1	23.3	—	—	—
<b>2001</b>												
Total	28.5	29.2	27.7	47.1	49.2	45.0	23.9	27.9	20.0	—	—	—
White	31.9	32.7	31.2	50.4	52.6	48.3	24.4	28.4	20.6	—	—	—
Black	14.7	16.3	13.3	32.7	35.0	30.6	21.8	28.2	16.0	—	—	—
Hispanic	26.6	27.2	26.0	49.2	49.5	48.8	24.6	26.8	22.4	—	—	—
<b>On school property</b>												
<b>1997</b>												
Total	14.6	15.9	13.0	5.6	7.2	3.6	7.0	9.0	4.6	31.7	37.4	24.7
White	15.8	16.5	14.9	4.8	6.3	2.0	5.8	7.3	3.9	31.0	36.1	24.5
Black	8.8	12.4	5.5	5.6	7.3	4.9	9.1	13.0	5.4	25.4	34.6	16.7
Hispanic	11.9	15.3	7.7	8.2	8.7	7.6	10.4	14.1	5.9	41.1	46.8	34.4
<b>2001</b>												
Total	9.9	11.3	8.5	4.9	6.1	3.8	5.4	8.0	2.9	28.5	34.6	22.7
White	11.3	12.8	9.8	4.2	5.3	3.2	4.8	7.4	2.2	28.3	34.2	22.7
Black	4.9	7.2	2.8	5.3	7.5	3.1	6.1	10.2	2.3	21.9	27.9	16.2
Hispanic	7.7	7.5	7.9	7.0	6.9	7.1	7.4	9.0	5.8	34.2	39.8	28.7

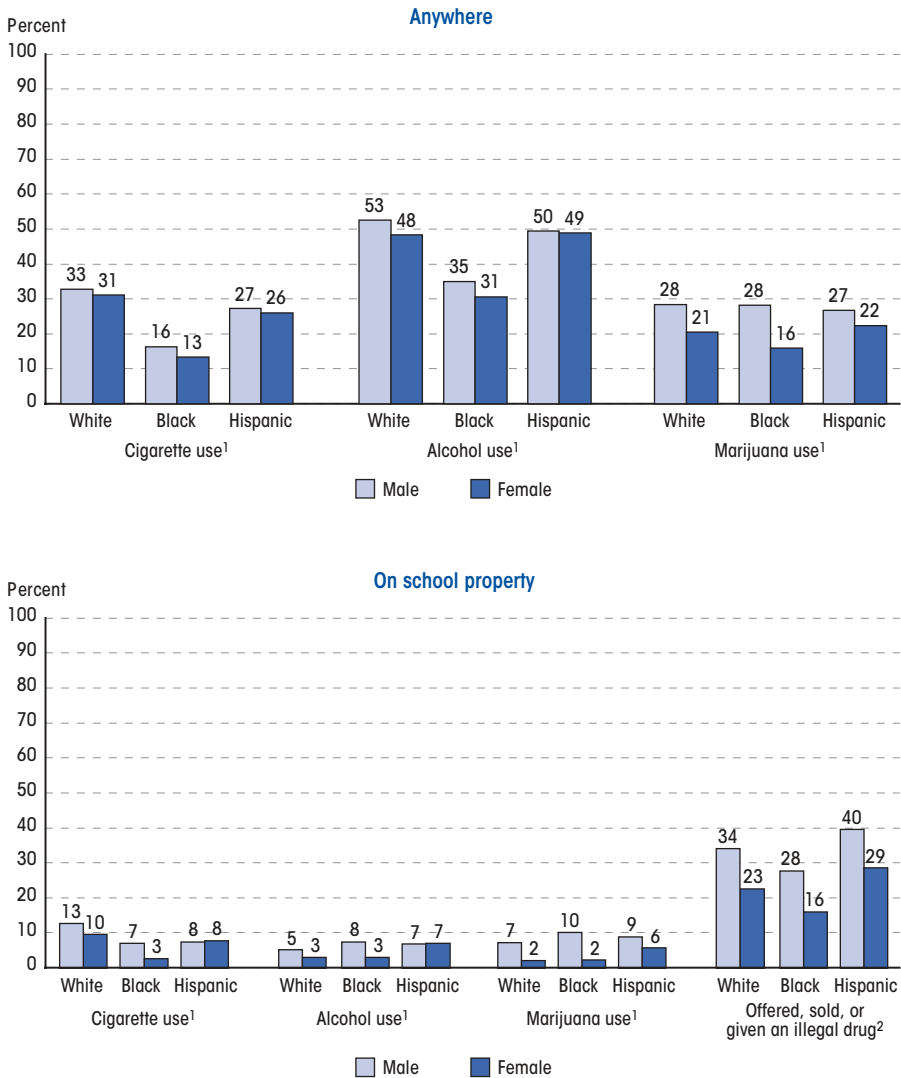
—Not available.

<sup>1</sup>In the previous 30 days.

<sup>2</sup>In the previous 12 months.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, CDC Surveillance Summaries, *Morbidity and Mortality Weekly Report*, 47(SS-05) and 51(SS-04).

**Figure 18. Percent of students in grades 9 through 12 who reported use of alcohol and other drugs and engaging in drug-related behaviors anywhere and on school property, by type of behavior, race/ethnicity, and sex: 2001**



<sup>1</sup>In the previous 30 days.

<sup>2</sup>In the previous 12 months.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, CDC Surveillance Summaries, *Morbidity and Mortality Weekly Report*, 47(SS-05) and 51(SS-04).

## 19. Dropouts

*In 2001, males were more likely than females to have dropped out of high school.*

Dropouts from high school are more likely to be unemployed and earn less when they are employed than those who complete high school (*Dropout Rates in the United States: 2000*). The status dropout rate, one of several measures of dropout rates, represents the percentage of people ages 16-24 who are not enrolled in school and who have not earned a high school diploma, GED, or other certificate of completion. According to this measure, males were more likely than females to have dropped out of high school in four of the five most recent years measured. For instance, in 2001, 12 percent of young males were dropouts, compared to 9 percent of young females. This is different from the general pattern in the 1970s, when dropout rates were generally similar for males and females.

These sex differences in status dropout rates were evident within racial/ethnic groups in 2001. For example, dropout rates were higher among White

males (8 percent) than White females (7 percent), Black males (13 percent) compared to Black females (9 percent), and higher among Hispanic males (32 percent) than Hispanic females (22 percent). However, there were also differences across racial/ethnic groups. For instance, although Hispanic females were less likely than Hispanic males to have dropped out in 2001, they were still more likely than Black and White males (and females) to have done so.

The percentages of both males and females who dropped out of high school decreased between 1972 and 2001; the percentage of males who were dropouts decreased from 14 to 12 percent, while the percentage of females decreased from 15 to 9 percent. When examined by sex and race/ethnicity, the dropout rate of White males and females, Black males and females, and Hispanic females decreased during this period, while no decrease was detected for Hispanic males.

**Table 19. Percent of 16- to 24-year-olds who were status dropouts, by sex and race/ethnicity: Various years, 1972 to 2001**

Year	Male				Female			
	Total <sup>1</sup>	White	Black	Hispanic	Total <sup>1</sup>	White	Black	Hispanic
1972	14.1	11.6	22.3	33.7	15.1	12.8	20.5	34.8
1974	14.2	12.0	20.1	33.8	14.3	11.8	22.1	22.1
1976	14.1	12.1	21.2	30.3	14.2	11.8	19.9	32.3
1978	14.6	12.2	22.5	33.6	13.9	11.6	18.3	33.1
1980	15.1	12.3	20.8	37.2	13.1	10.5	17.7	33.2
1982	14.5	12.0	21.2	30.5	13.3	10.8	15.9	32.8
1984	14.0	11.9	16.8	30.6	12.3	10.1	14.3	29.0
1986	13.1	10.3	15.0	32.8	11.4	9.1	13.5	27.2
1988	13.5	10.3	15.0	36.0	12.2	8.9	14.0	35.4
1990	12.3	9.3	11.9	34.3	11.8	8.7	14.4	30.3
1991	13.0	8.9	13.5	39.2	11.9	8.9	13.7	31.1
1992 <sup>2</sup>	11.3	8.0	12.5	32.1	10.7	7.4	14.8	26.6
1993 <sup>2</sup>	11.2	8.2	12.6	28.1	10.9	7.6	14.4	26.9
1994 <sup>2</sup>	12.3	8.0	14.1	31.6	10.6	7.5	11.3	28.1
1995 <sup>2</sup>	12.2	9.0	11.1	30.0	11.7	8.2	12.9	30.0
1996 <sup>2</sup>	11.4	7.3	13.5	30.3	10.9	7.3	12.5	28.3
1997 <sup>2</sup>	11.9	8.5	13.3	27.0	10.1	6.7	13.5	23.4
1998 <sup>2</sup>	13.3	8.6	15.5	33.5	10.3	6.9	12.2	25.0
1999 <sup>2</sup>	11.9	7.7	12.1	31.0	10.5	6.9	13.0	26.0
2000 <sup>2</sup>	12.0	7.0	15.3	31.8	9.9	6.9	11.1	23.5
2001 <sup>2</sup>	12.2	7.9	13.0	31.6	9.3	6.7	9.0	22.1

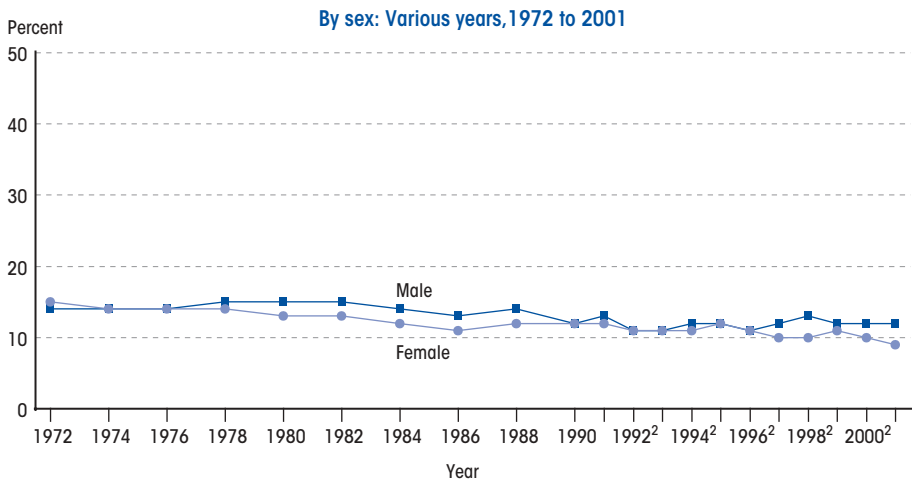
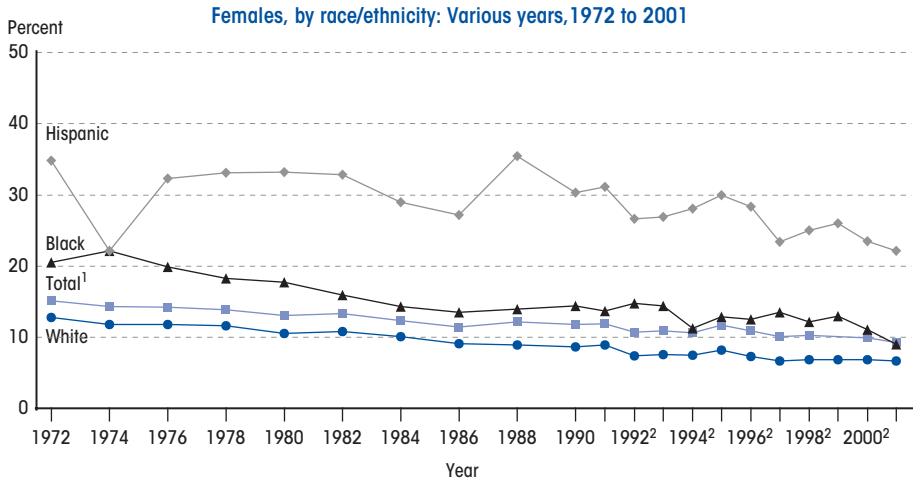
<sup>1</sup>Included in the total but not shown separately are dropouts from other racial/ethnic groups.

<sup>2</sup>Beginning in 1992, data reflect new wording of the educational attainment item in the Current Population Survey.

NOTE: Status dropouts are persons who are not enrolled in school and who are not high school completers. People who have received GED credentials are counted as completers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, table 108, based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys (CPS), October supplement, various years, unpublished tabulations.

**Figure 19. Percent of 16- to 24-year-olds who were status dropouts, by race/ethnicity and sex: Various years, 1972 to 2001**



<sup>1</sup>Included in the total but not shown separately are dropouts from other racial/ethnic groups.

<sup>2</sup>Beginning in 1992, data reflect new wording of the educational attainment item in the Current Population Survey.

NOTE: Status dropouts are persons who are not enrolled in school and who are not high school completers. People who have received GED credentials are counted as completers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, table 108, based on U.S. Department of Commerce, Bureau of the Census, Current Population Surveys (CPS), October supplement, various years, unpublished tabulations.



## 20. Educational Attainment of Childbearing Teens

*Males and females who have a child in high school are more likely to drop out of high school and less likely to receive a bachelor's degree.*

Because early childbirth is often associated with lower rates of educational attainment, it is important to track the birth rates for the teenage population over time. From 1990 to 2000, the birth rate for White, non-Hispanic teens remained stable, while the rate for Black teens decreased substantially. The birth rate for Hispanic teens increased during this time period, from 66 per 1,000 women in 1990 to 74 per 1,000 women in 2000 (appendix A-20).

For 1988 eighth-graders, timing of childbirth was related to their level of educational attainment in 2000. About 29 percent of females who had a child in high school did not complete high school.

Thirty-five percent of high school fathers dropped out. Females who had no child as of 2000 were more likely to have received a bachelor's or higher degree, compared to those who had a child during or within 8 years after high school (44 percent vs. 2 and 15 percent). A greater proportion of women who had a child within 8 years after high school received a bachelor's or higher degree compared to those who had a child while in high school. Males who fathered a child while in high school or within 8 years after high school also received bachelor's or higher degrees at lower percentages than those who did not.

**Table 20. Percent of 1988 eighth-graders bearing children by 2000, by sex, timing of child birth, and highest educational attainment: 2000**

Educational attainment	Female			Male		
	Child in high school <sup>1</sup>	Child after high school <sup>2</sup>	No child	Child in high school <sup>1</sup>	Child after high school <sup>2</sup>	No child
High school dropout	29.4	6.5	5.4	35.4	9.6	6.2
Received high school diploma	13.6	19.9	11.3	26.1	30.2	13.0
Some college	43.0	38.2	23.9	18.6	38.3	32.1
Received certificate or license	8.0	13.5	8.0	11.4	7.9	5.7
Received associate's degree	3.8	7.4	7.0	4.9	4.9	7.2
Received bachelor's degree or higher	2.2	14.6	44.4	3.6	9.1	35.8

<sup>1</sup> Includes having a child as an eighth-grader.

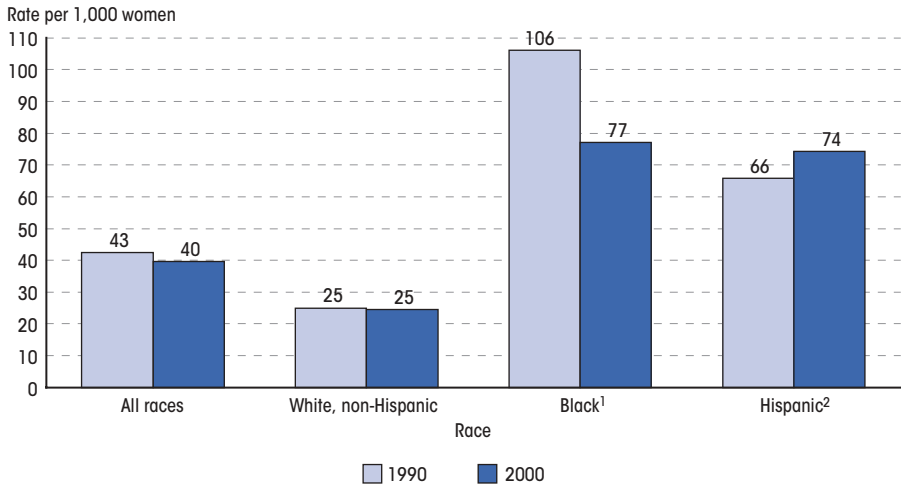
<sup>2</sup> Child born between 1992 graduation and 2000.

NOTE: Detail may not sum to totals because of rounding and item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000).

\*Fourth Follow-up, 2000,\* unpublished tabulations.

**Figure 20-A. Birth rates per 1,000 unmarried women 15 to 19 years old, by race: 1990 and 2000**

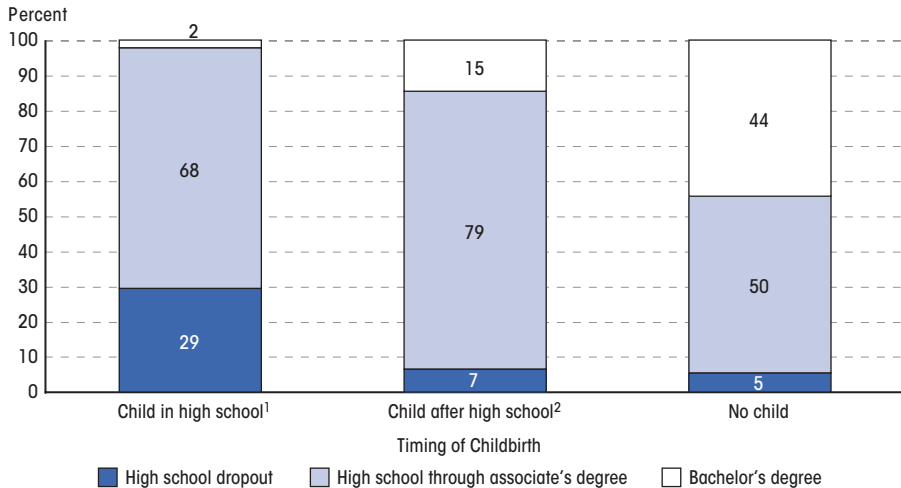


<sup>1</sup>Includes persons of Hispanic origin.

<sup>2</sup>Includes all persons of Hispanic origin of any race.

SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics, *National Vital Statistics Reports*, Vol. 48, no. 16; Vol. 49, no. 1; and Vol. 50, no. 5.

**Figure 20-B. Highest educational attainment of 1988 eighth-grade females by 2000, by timing of child birth: 2000**



<sup>1</sup>Includes having a child as an eighth-grade student.

<sup>2</sup>Child born between 1992 graduation and 2000.

NOTE: Detail may not sum to totals because of rounding and item nonresponse.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988 (NELS:88/2000), "Fourth Follow-up, 2000," unpublished tabulations.

## 21. High School Coursetaking Patterns

*The percentages of high school graduates who had taken various mathematics and science courses increased among both males and females between 1982 and 2000.*

Males and females who graduated high school in 2000 were generally more likely than their 1982 counterparts to have taken various mathematics and science courses while in high school. For example, the percentages of male and female graduates who took algebra II while in high school increased from 41 and 39 percent, respectively, in 1982 to 65 and 71 percent, respectively, in 2000. Similarly, the percentage of male graduates who took calculus increased from 6 to 12 percent and the percentage of female graduates increased from 4 to 11 percent. The same pattern was evident in other courses such as biology, AP/honors biology, chemistry, and physics. One exception to this trend was that no change was detected between the two years in the percentages of males and females who had taken trigonometry.

In 1982, male graduates were more likely than female graduates to have taken physics. This was the only course of those considered in which a difference was detected between the genders. By 2000, however, female graduates were more likely than male graduates to have taken geometry, algebra II, biology, AP/honors biology, and chemistry.

In 2000, males and females graduated high school with similar numbers of total Carnegie units completed. By subject area, female graduates earned more units in foreign languages and arts than males, and earned fewer units in vocational education. However, males and females earned similar numbers of Carnegie units in English, history, mathematics, and science in 2000.

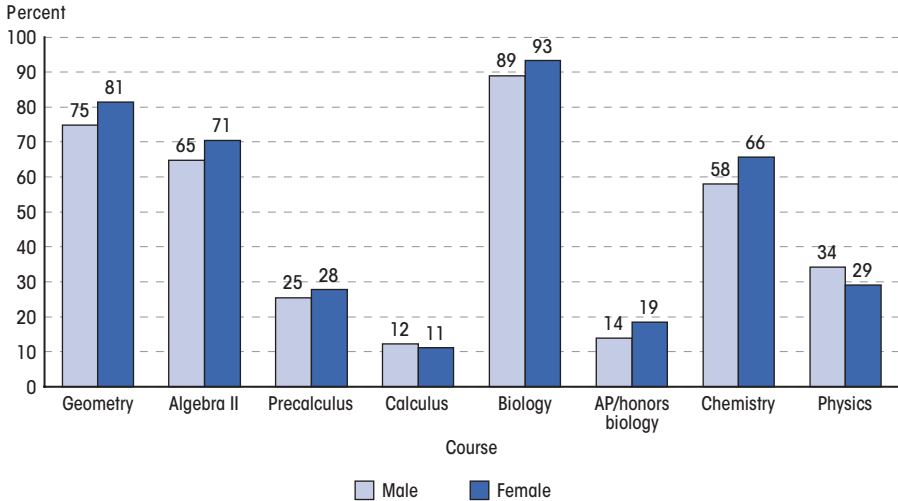
**Table 21. Percent of public high school graduates who took various mathematics and science courses in high school, by sex and year of graduation: Various years, 1982 to 2000**

Mathematics and science course	1982			1990			1994			1998			2000		
	Total <sup>1</sup>	Male	Female	Total <sup>1</sup>	Male	Female	Total <sup>1</sup>	Male	Female	Total <sup>1</sup>	Male	Female	Total <sup>1</sup>	Male	Female
<b>Mathematics</b>															
Geometry	47.1	47.2	47.0	63.2	62.1	64.2	70.0	67.9	72.2	75.1	73.7	77.3	78.3	74.9	81.4
Algebra II	39.9	40.8	39.0	52.8	51.0	54.6	61.1	57.7	64.3	61.7	59.8	63.7	67.8	64.8	70.5
Trigonometry	8.1	9.2	7.0	9.6	9.8	9.4	11.7	11.1	12.3	8.9	8.2	9.7	7.5	7.3	7.7
Precalculus	6.2	6.5	5.9	13.3	14.0	12.8	17.3	16.3	18.3	23.1	23.0	22.9	26.7	25.4	27.9
Calculus	5.0	5.7	4.4	6.5	7.5	5.6	9.3	9.5	9.1	11.0	11.2	10.6	11.6	12.2	11.1
<b>Science</b>															
Biology	77.4	75.8	78.8	91.0	89.4	92.3	93.2	91.8	94.5	92.7	91.4	94.1	91.2	89.0	93.3
AP/honors biology	10.0	9.4	10.6	10.1	9.4	10.8	11.9	10.9	12.8	16.2	14.5	18.0	16.3	13.8	18.5
Chemistry	32.1	33.5	30.9	48.9	47.7	50.0	55.8	52.9	58.5	60.4	57.1	63.5	62.0	58.0	65.7
Physics	15.0	20.2	10.5	21.6	25.4	18.0	24.5	27.0	22.2	28.8	31.7	26.2	31.4	34.2	29.0
Engineering	1.2	1.7	0.8	4.2	4.4	4.1	4.5	3.9	5.0	6.7	7.1	6.5	3.9	4.3	3.5

<sup>1</sup>Included in the totals but not shown separately are graduates whose sex was not reported.

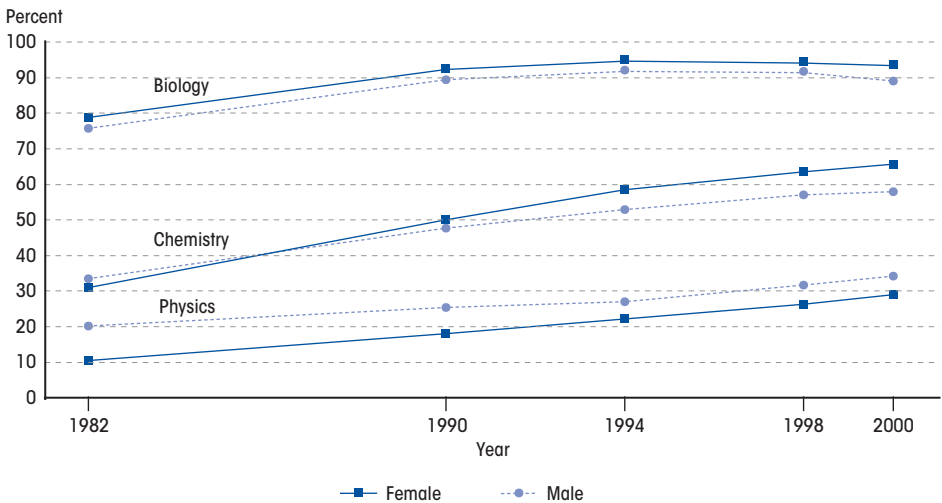
SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Longitudinal Study of 1980 Sophomores, "High School Transcript Study" (HS&B-So:80/82); 1990 High School Transcript Study (HSTS:90); National Education Longitudinal Study of 1988 (NELS:88/92), "Second Follow-up, Transcript Survey 1992"; 1994 High School Transcript Study (HSTS:94); 1998 High School Transcript Study (HSTS:98); and 2000 High School Transcript Study (HSTS:00).

**Figure 21-A. Percent of public high school graduates of 2000 who had taken various mathematics and science courses in high school, by sex: 2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Longitudinal Study of 1980 Sophomores, "High School Transcript Study" (HS&B-So:80/82); 1990 High School Transcript Study (HSTS:90); National Education Longitudinal Study of 1988 (NELS:88/92), "Second Follow-up, Transcript Survey 1992"; 1994 High School Transcript Study (HSTS:94); 1998 High School Transcript Study (HSTS:98); and 2000 High School Transcript Study (HSTS:00).

**Figure 21-B. Percent of public high school graduates who took various science courses in high school, by year of graduation and sex: Various years, 1982 to 2000**



SOURCE: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Longitudinal Study of 1980 Sophomores, "High School Transcript Study" (HS&B-So:80/82); 1990 High School Transcript Study (HSTS:90); National Education Longitudinal Study of 1988 (NELS:88/92), "Second Follow-up, Transcript Survey 1992"; 1994 High School Transcript Study (HSTS:94); 1998 High School Transcript Study (HSTS:98); and 2000 High School Transcript Study (HSTS:00).

## 22. Advanced Placement Examinations

*More female than male high school students take AP examinations.*

By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects. There has been a general expansion of the AP program since the mid-1980s, as more schools offer AP courses and more students take advantage of these offerings (College Board 2002).

Between 1985 and 2002, the number of students taking AP examinations has more than quadrupled, indicating significant program expansion over the past two decades. In 1985, relatively equal numbers of males and females took AP examinations. By 2002, however, the majority of AP examination takers were female (56 percent).

Across subject areas, females accounted for the majority of students who took examinations in social studies (55 percent), English (64 percent) and foreign languages (65 percent). However, males were more likely than females to take examinations in calculus, computer science, and science.

Students who score 3 or higher on an AP examination may be eligible to receive college credit. In 2002, the average scores on AP examinations were higher for males than females across all subject areas, except foreign language.

**Table 22-A. Number of students taking Advanced Placement (AP) examinations, by sex: Various years, 1985 to 2002**

[In thousands]

Sex	1985	1986	1987	1988	1989	1990	1995	1996	1997	1998	1999	2000	2001	2002
Total	203	229	259	288	310	324	493	525	567	618	686	748	821	913
Male	103	115	129	142	152	157	222	236	253	275	306	333	364	403
Female	100	113	130	146	158	167	271	289	313	343	380	415	457	511

NOTE: Detail may not sum to totals because of rounding.

SOURCE: The College Board, Advanced Placement Program, *National Summary Reports*, various years.

**Table 22-B. Number and percentage distribution of Advanced Placement (AP) examinations taken, by subject area and sex: 2002**

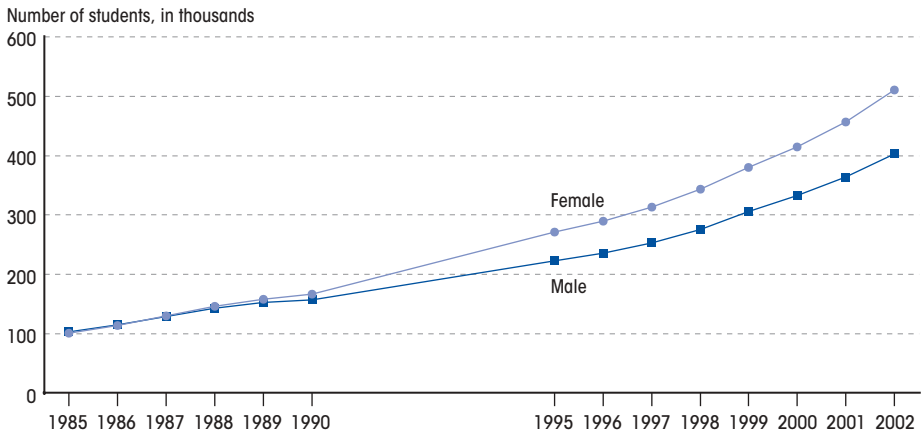
Sex	Number and percentage distribution of AP examinations taken						
	Any AP exam <sup>1</sup>	Social studies	English	Foreign language	Calculus	Computer science	Science
<b>Total [In thousands]</b>	1,549	472	365	112	194	23	161
<b>Percent distribution</b>							
Male	45.6	45.4	36.5	35.1	54.0	85.7	57.3
Female	54.4	54.6	63.5	64.9	46.0	14.3	42.7

<sup>1</sup>Includes subject tests not listed above.

NOTE: Social studies includes examinations in psychology; government and politics; human geography; and European, U.S., and world history. English includes English language and composition. Foreign language includes both language and literature examinations in the following languages: French, German, Latin, and Spanish. Calculus includes both AB and BC calculus. Computer science includes A and AB computer science. Science includes biology; chemistry; environmental science; and physics B, physics mechanics, and physics electricity and magnetics.

SOURCE: The College Board, Advanced Placement Program, *National Summary Report*, 2002.

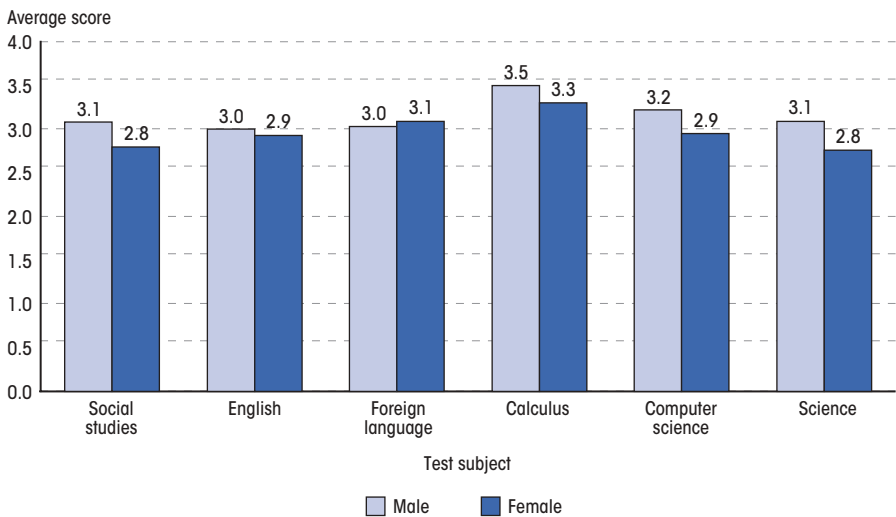
**Figure 22-A. Number of students taking Advanced Placement (AP) examinations, by sex: Various years, 1985 to 2002**



NOTE: Please see the report, *Advanced Placement Program, National Summary Report, 2002*, from the College Board for more specific information regarding test subjects.

SOURCE: The College Board, *Advanced Placement Program, National Summary Report*, various years, 1985 to 2002.

**Figure 22-B. Average score on Advanced Placement (AP) examinations, by test subject area and sex: 2002**



NOTE: Please see the report, *Advanced Placement Program, National Summary Report, 2002*, from the College Board for more specific information regarding test subjects.

SOURCE: The College Board, *Advanced Placement Program, National Summary Report, 2002*.





## **POSTSECONDARY EDUCATION**

- 23. College Plans**
- 24. Transition to College**
- 25. College Enrollment**
- 26. College Athletics**
- 27. Working While Enrolled in College**
- 28. Persistence Toward and Completion of a Bachelor's Degree**
- 29. Undergraduate Degrees**
- 30. Undergraduate Degrees for Minority Females**
- 31. Graduate Degrees**
- 32. Adult Education**
- 33. Educational Attainment**
- 34. International Educational Attainment**



### 23. College Plans

*Since 1990, female high school seniors have been more likely to plan to graduate from college than males.*

High school seniors' college plans provide one measure of the value students place on postsecondary education as compared with other pursuits. In both 1990 and 2001, female high school seniors were more likely than male seniors to report that they planned to definitely graduate from a 4-year college program. They were also more likely to report that they would definitely graduate from a 2-year college program. However, in 2001, female seniors were less likely than their male peers to report that they would definitely attend a technical or vocational school.

In 1980, a higher proportion of male high school seniors than female seniors (12 percent vs. 10 percent) reported that they definitely would attend graduate or professional school after college. However, by 2001, more female seniors than male seniors (25 percent vs. 16 percent) reported that they would definitely do so.

The percentages of males and females who reported that they would definitely graduate from 2- and 4-year colleges, as well as the percentages who reported that they would definitely attend graduate or professional school, were higher in 2001 compared to 1980.

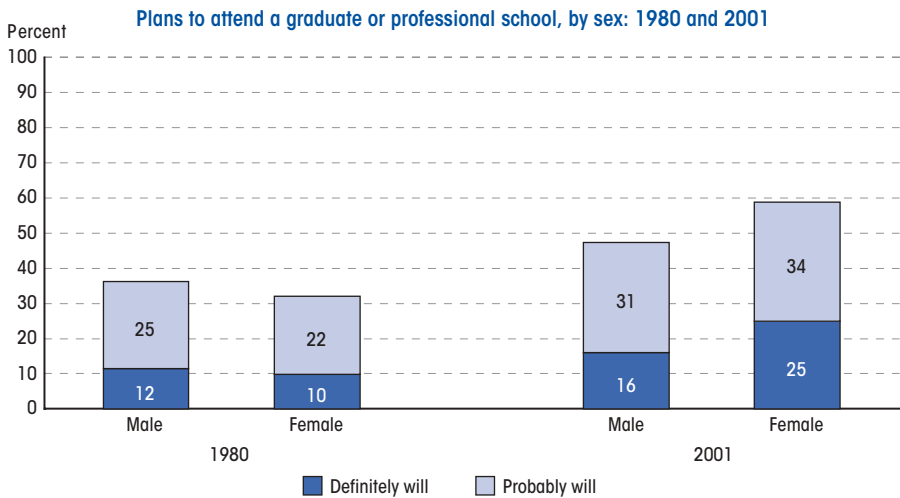
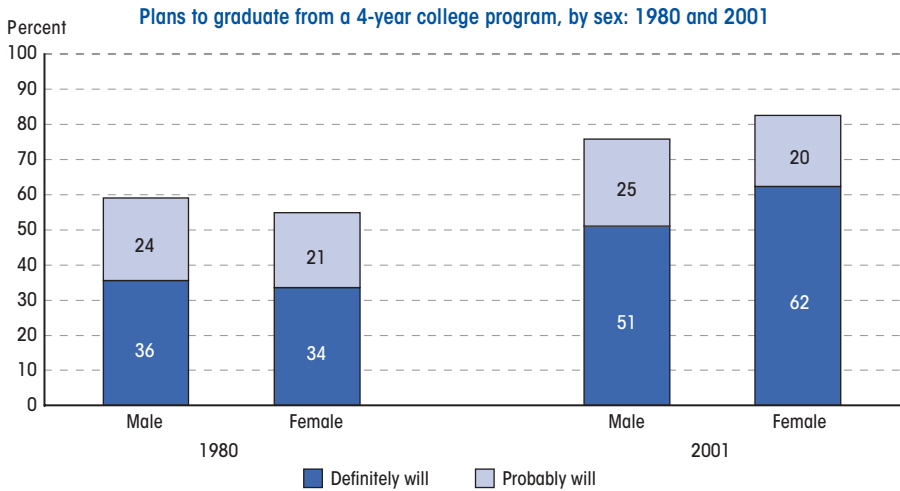
**Table 23. Percent of high school seniors reporting plans for postsecondary education, by sex and program type: 1980, 1990, and 2001**

Postsecondary plans	Total			Male			Female		
	1980	1990	2001	1980	1990	2001	1980	1990	2001
<b>Attend a technical/vocational school</b>									
Definitely will	9.4	8.7	9.0	9.9	9.0	9.9	8.7	8.3	7.9
Probably will	17.5	15.2	14.5	19.2	16.4	16.9	15.8	13.8	12.0
Definitely/probably won't	73.1	76.1	76.4	70.9	74.5	73.2	75.5	78.0	80.1
<b>Graduate from a 2-year college program</b>									
Definitely will	11.8	16.2	17.8	9.6	13.9	15.5	13.6	18.6	19.9
Probably will	20.5	22.4	21.5	19.2	22.0	22.1	21.6	22.8	20.8
Definitely/probably won't	67.7	61.2	60.7	71.2	64.1	62.3	64.7	58.6	59.4
<b>Graduate from a 4-year college program</b>									
Definitely will	34.5	48.1	56.7	35.6	45.8	51.1	33.6	50.8	62.4
Probably will	22.4	22.2	22.4	23.5	24.0	24.8	21.3	20.5	20.2
Definitely/probably won't	43.2	29.7	20.9	41.0	30.2	24.1	45.0	28.8	17.5
<b>Attend graduate school or professional school after college</b>									
Definitely will	10.6	15.2	20.7	11.5	14.2	16.1	9.8	16.4	24.9
Probably will	23.5	30.4	32.6	24.8	29.7	31.3	22.3	31.3	33.9
Definitely/probably won't	65.9	54.4	46.6	63.8	56.2	52.7	67.9	52.2	41.1

NOTE: Students were asked how likely it was that they would participate in different types of postsecondary education. The response options were "definitely will," "probably will," "probably won't," and "definitely won't." The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1980, 1990, and 2001, unpublished data.

**Figure 23. Percent of high school seniors reporting plans to graduate from a 4-year college program and attend a graduate or professional school, by sex: 1980 and 2001**



NOTE: Students were asked how likely it was that they would participate in different types of postsecondary education. The response options were "definitely will," "probably will," "probably won't," and "definitely won't." Detail may not sum to totals because of rounding. The response rates for this survey do not meet NCES statistical standards. The response rate for this survey was less than 70 percent and a full nonresponse bias analysis has not been done to date.

SOURCE: University of Michigan, Institute for Social Research, Monitoring the Future Study, 1980 and 2001, unpublished data.

## 24. Transition to College

*In recent years, females have generally been more likely than males to enroll in college immediately following high school.*

The proportion of high school graduates who enroll in college directly after high school partly reflects the accessibility of higher education and the value high school completers place on college compared with other pursuits (*The Condition of Education 2001, indicator 26*). In 1972, more male than female high school completers went directly to college, but the opposite has often been the case since 1996. For example, in 1972, 53 percent of male completers and 46 percent of female completers went directly to college after high school, whereas in 2000, 60 percent of male and 66 percent of female completers enrolled in college immediately after high school. In 2001, the apparent difference in the percentages of male and female completers who went to college was not statistically significant.

The proportion of males and females who enrolled in college immediately after completing high school increased between 1972 and 2001, but the proportion of females increased at a faster rate. Between 1973 and 2001, the proportion of females enrolled in 4-year institutions increased from 28 percent to 43 percent, a 15 percentage point increase, while the proportion of males enrolled in 4-year institutions increased from 35 percent to 41 percent, a 6 point increase. In addition, the proportion of students enrolled in 2-year institutions has increased for females, from 15 percent to 21 percent.

Despite the increases since the early 1970s, the proportion of females who enrolled in college immediately after completing high school decreased by 7 percentage points from 1997 to 2001.

**Table 24. Percent of high school completers who were enrolled in college the October following high school completion, by sex and level of institution attended: Various years, October 1972 through October 2001**

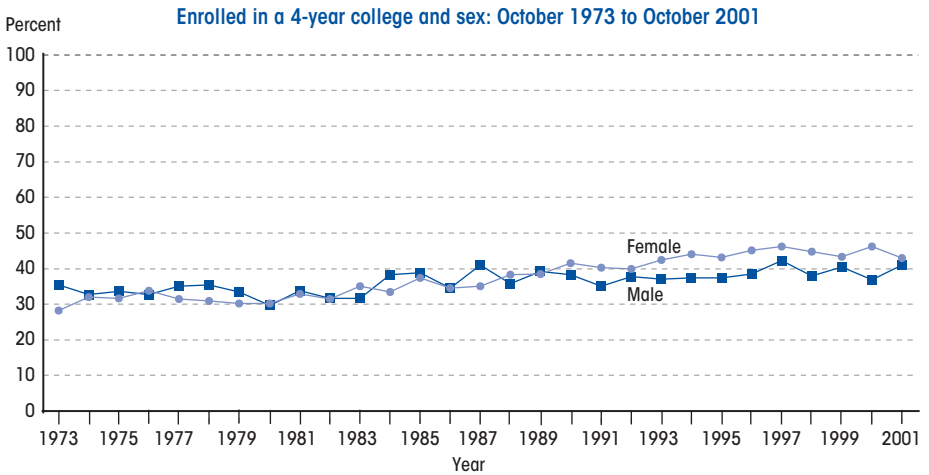
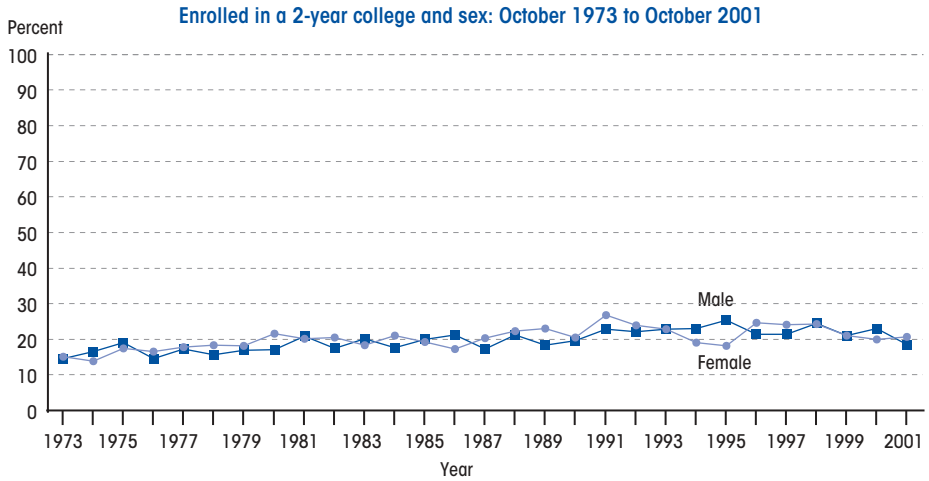
Year	Male			Female		
	Total	2-year	4-year	Total	2-year	4-year
1972	52.7	—	—	46.0	—	—
1973	50.0	14.6	35.4	43.4	15.2	28.2
1975	52.6	19.0	33.6	49.0	17.4	31.6
1980	46.7	17.1	29.7	51.8	21.6	30.2
1981	54.8	20.9	33.9	53.1	20.1	33.0
1982	49.1	17.5	31.6	52.0	20.6	31.4
1983	51.9	20.2	31.7	53.4	18.4	35.1
1984	56.0	17.7	38.4	54.5	21.0	33.5
1985	58.6	19.9	38.8	56.8	19.3	37.5
1986	55.8	21.3	34.5	51.9	17.3	34.6
1987	58.3	17.3	41.0	55.3	20.3	35.0
1988	57.1	21.3	35.8	60.7	22.4	38.3
1989	57.6	18.3	39.3	61.6	23.1	38.5
1990	58.0	19.6	38.4	62.2	20.6	41.6
1991	57.9	22.9	35.0	67.1	26.8	40.3
1992	60.0	22.1	37.8	63.8	23.9	40.0
1993	59.9	22.9	37.0	65.2	22.8	42.4
1994	60.6	23.0	37.5	63.2	19.1	44.1
1995	62.6	25.3	37.4	61.3	18.1	43.2
1996	60.1	21.5	38.5	69.7	24.6	45.1
1997	63.6	21.4	42.2	70.3	24.1	46.2
1998	62.4	24.4	38.0	69.1	24.3	44.8
1999	61.4	21.0	40.5	64.4	21.1	43.3
2000	59.9	23.1	36.8	66.2	20.0	46.2
2001	59.7	18.6	41.1	63.6	20.7	42.9

—Not available.

NOTE: Data for type of institution were not collected until 1973. Detail may not sum to totals because of rounding. Excludes high school completers under age 16 and over age 24.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), 1972–2001.

**Figure 24.** Percent of high school completers who were enrolled in a 2-year college or 4-year college the October following high school completion, by sex: October 1973 to October 2001



NOTE: Data for type of institution were not collected until 1973. Detail may not sum to totals because of rounding. Excludes high school completers under age 16 and over age 24.

SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), 1973–2001.

## 25. College Enrollment

*Females make up more than half of all undergraduate and graduate students, but less than half of all first-professional students.*

The proportion of females enrolled in college increased substantially during the 1970s, and continued to increase (though less substantially) during the 1980s and into the 1990s. Females represented the majority of undergraduate and graduate students in 2000. The proportion of female undergraduates rose from 42 percent in 1970 to 56 percent in 2000. Similarly, the proportion of females in graduate programs rose from 39 percent in 1970 to 58 percent in 2000.

Females make up the majority of full-time students at both the undergraduate and graduate levels. Among undergraduate students, female

students accounted for 41 percent of all full-time students in 1970, increasing to 55 percent by 2000. A similar pattern exists at the graduate level, with female students accounting for 30 percent of all full-time graduate students in 1970, increasing to 54 percent by 2000.

Even more substantial percentage increases in female enrollment occurred at the first-professional level. Increases in first-professional enrollment have occurred consistently since 1970; females accounted for 9 percent of first-professional students in 1970, compared to 47 percent in 2000.

**Table 25. Percentage distribution of college students, by level, sex, and attendance status: Various years, fall 1970 to fall 2000**

Level and attendance status	1970		1975		1980		1985		1990		1995		2000	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>Undergraduate<sup>1</sup></b>														
Total	57.7	42.3	54.3	45.7	47.7	52.3	46.8	53.2	45.0	55.0	44.2	55.8	44.0	56.1
Full-time	58.7	41.3	56.1	43.9	50.7	49.3	49.9	50.1	47.8	52.2	46.1	53.9	45.3	54.7
Part-time	55.2	44.8	51.2	48.8	43.1	56.9	42.2	57.8	41.0	59.0	41.4	58.6	41.9	58.1
<b>Graduate</b>														
Total	61.2	38.8	55.4	44.6	50.1	49.9	49.2	50.8	46.5	53.5	44.3	55.7	42.2	57.9
Full-time	69.7	30.3	64.0	36.0	57.9	42.1	56.8	43.2	53.6	46.4	49.6	50.4	46.4	53.6
Part-time	56.2	43.8	50.6	49.4	45.8	54.2	44.7	55.3	42.1	57.9	40.6	59.4	38.8	61.2
<b>First-professional<sup>2</sup></b>														
Total	91.5	8.5	79.3	20.7	71.8	28.2	65.6	34.4	61.0	39.0	58.4	41.6	53.4	46.6
Full-time	91.7	8.3	80.5	19.5	72.2	27.8	65.8	34.2	60.9	39.1	58.2	41.8	53.1	46.9
Part-time	89.7	10.3	66.9	33.1	67.8	32.2	63.2	36.8	61.8	38.2	60.4	39.6	56.0	44.1

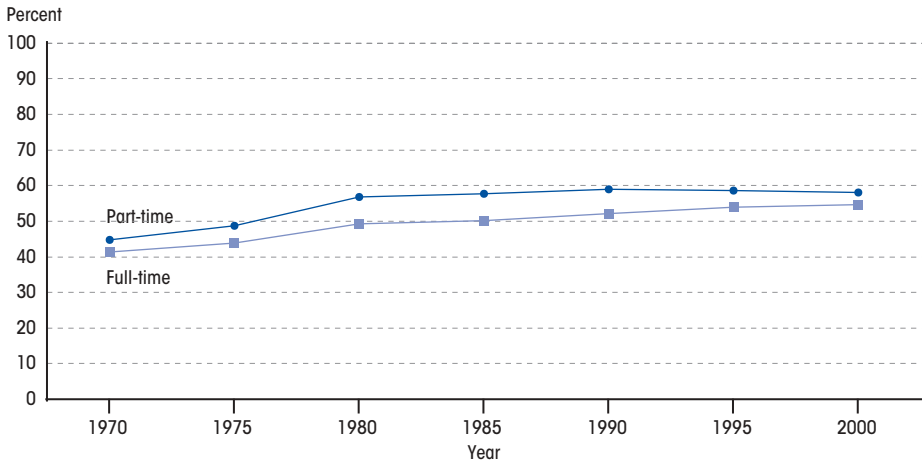
<sup>1</sup>Includes unclassified undergraduate students.

<sup>2</sup>First-professional students are enrolled in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D. Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Enrollment" surveys, various years.

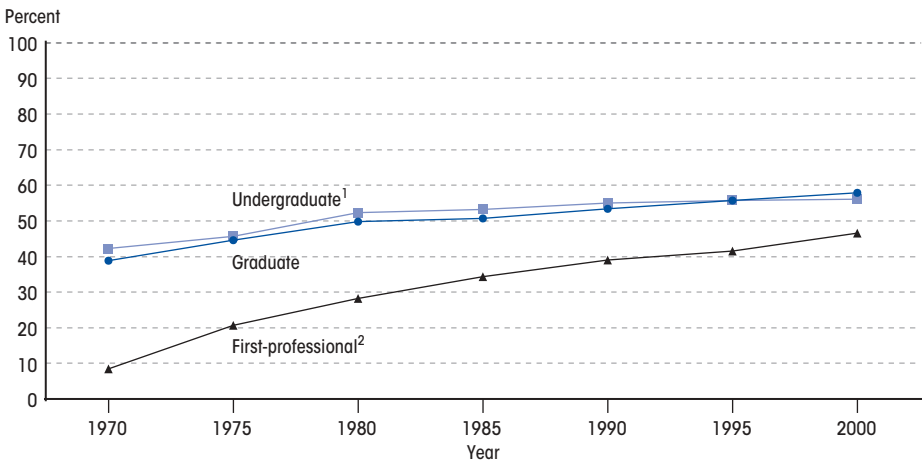
**Figure 25-A. Percent of undergraduates who were female, by enrollment status: Various years, fall 1970 to fall 2000**



NOTE: Includes unclassified undergraduate students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Enrollment" surveys, various years.

**Figure 25-B. Females as a percent of total enrollment in undergraduate, graduate, and first-professional education: Various years, fall 1970 to fall 2000**



<sup>1</sup>Includes unclassified undergraduate students.

<sup>2</sup>First-professional students are enrolled in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D. Phar.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics 2002*, based on Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys; and Integrated Postsecondary Education Data System (IPEDS), "Enrollment" surveys, various years.

## 26. College Athletics

*The percentage of college athletes who are female has increased since the early 1980s.*

Since 1981–82, the number of females participating in National Collegiate Athletic Association (NCAA)-sponsored championship sports has increased in all three divisions. For example, between 1981–82 and 2001–02, the number of females participating in Division I sports increased by 150 percent. By contrast, the number of male participants increased more moderately (by 15 percent). As a result, female participation relative to males changed during this period. Although males consistently accounted for a higher proportion of Division I athletes, the overall proportion who were females increased from 26 percent in 1981–82 to 43 percent in 2001–02.

The graduation rate for male athletes in NCAA Division I programs has consistently been lower than that for females athletes. Forty-seven percent of male athletes who entered school in 1984 graduated by 1990, and 54 percent of those who entered in 1995 graduated by 2001, compared with 62 and 69 percent, respectively, of their female peers. Similar patterns emerge when graduation rates are examined by race. White male athletes who entered college in 1995 had a 59 percent graduation rate by 2001, compared with a 72 percent graduation rate for White female athletes. Forty-three percent of Black male athletes who entered college in 1995 graduated by 2001, compared with 60 percent of Black female athletes.

**Table 26. Number and percentage distribution of participants in National Collegiate Athletic Association-sponsored championship sports, by sex and division: Various years, 1981–82 to 2001–02**

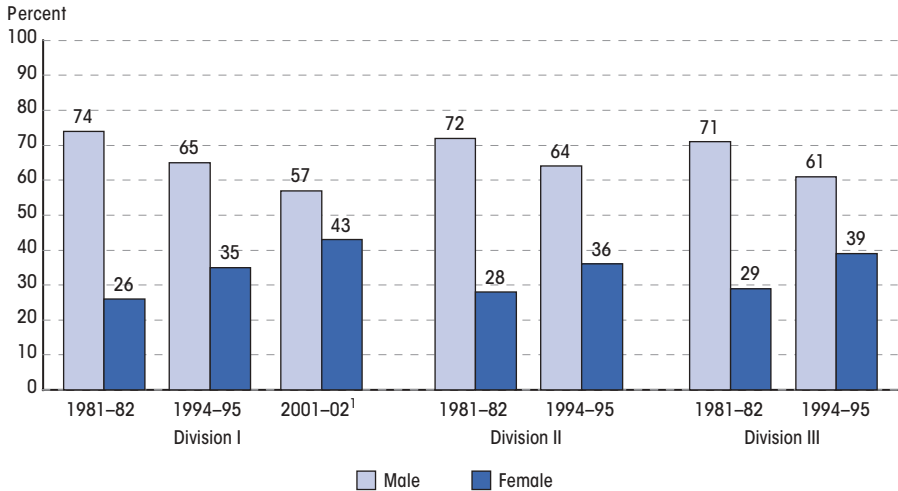
Division and school year	Number (in thousands)			Percentage distribution	
	Total	Male	Female	Male	Female
<b>Division I</b>					
1981–82	100	74	26	74	26
1994–95	127	83	44	65	35
2001–02 <sup>1</sup>	150	85	65	57	43
<b>Division II</b>					
1981–82	50	36	14	72	28
1994–95	60	38	21	64	36
<b>Division III</b>					
1981–82	82	58	24	71	29
1994–95	108	66	42	61	39

<sup>1</sup>Includes provisional members of NCAA.

NOTE: Division I member institutions have to sponsor at least seven sports for men and seven sports for women (or six for men and eight for women) with two team sports for each gender. Each playing season has to be represented by each gender as well. Division II institutions have to sponsor at least four sports for men and four for women, with two team sports for each gender, and each playing season represented by each gender. Division III institutions have to sponsor at least five sports for men and five for women, with two team sports for each gender, and each playing season represented by each gender. There are minimum contest and participant minimums for each sport. Beginning in 1995–96, NCAA data collection included provisional member schools. Because this change primarily affected data for Divisions II and III, data for years after 1994–95 for these divisions are not comparable to earlier years and are not shown. Detail may not sum to totals because of rounding.

SOURCE: National Collegiate Athletic Association, 1982–2002 NCAA Sponsorship and Participation Report.

**Figure 26-A. Percentage distribution of participants in NCAA-sponsored sports, by division and sex: Various years, 1981-82 to 2001-02**

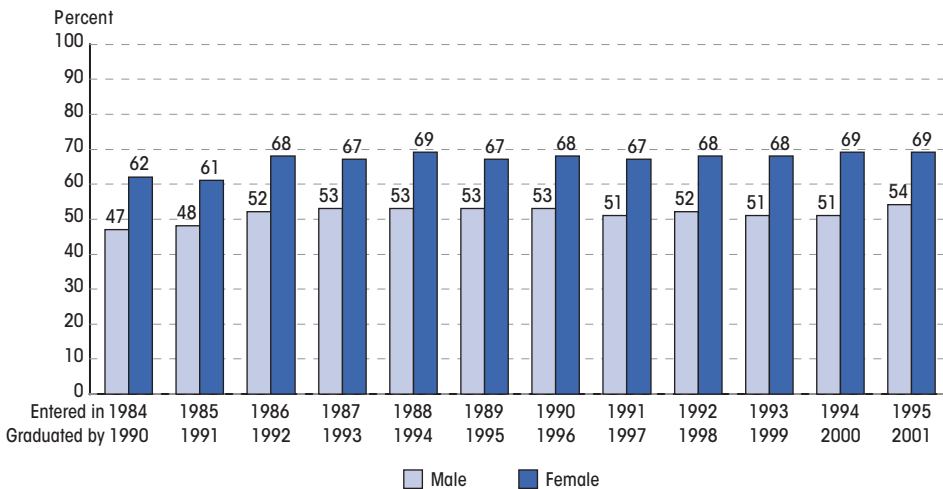


<sup>1</sup>Includes provisional members of NCAA.

NOTE: Beginning in 1995-96, NCAA data collection included provisional member schools. Because this change primarily affected data for Divisions II and III, data for years after 1994-95 for these divisions are not comparable to earlier years and are not shown. Detail may not sum to totals because of rounding. See table 26 for definitions of Division I, II, and III.

SOURCE: National Collegiate Athletic Association, *1982-2002 NCAA Sponsorship and Participation Report*.

**Figure 26-B. NCAA Division I graduation rates for student athletes who graduated college within 6 years of entrance, by sex: 1990 to 2001**



NOTE: See table 26 for definitions of Division I, II, and III.

SOURCE: National Collegiate Athletic Association, *2002 NCAA Graduation-Rates Report*.



## 27. Working While Enrolled in College

*Among full-time college students, females are more likely than males to work while attending school, although males are more likely than females to work 35 or more hours per week.*

Working while enrolled in college can pay for or help offset some costs of schooling. Students who work report that working limits their opportunities to learn and has a negative impact on their grades (*The Condition of Education 2002, indicator 37*). Overall, among full-time college students in 2001, a higher percentage of females (49 percent) than males (43 percent) worked while attending school. However, similar percentages of male and female full-time students worked 20 or more hours per week, and a higher percentage of male than female full-time students worked 35 or more hours per week.

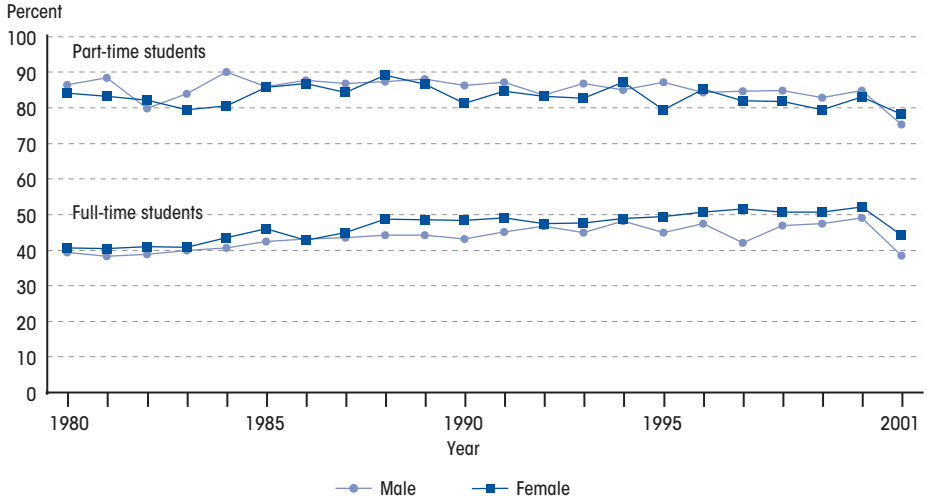
Conversely, full-time female students are more likely than full-time male students to work less than 20 hours per week. The percent of full-time students working under 20 hours per week has decreased since 1980 for both males and females, albeit at a faster pace for males. In contrast, since 1980 it has become more common for male and female full-time college students to work 20 or more hours per week while they attend school. The percentage of males who worked 20 or more hours per week while attending college full-time rose from 19 percent in 1980 to 29 percent in 2001, while the percentage of females rose from 17 to 28 percent.

**Table 27. Percent of 16- to 24-year-old college students who were employed, by sex, hours worked per week, and enrollment status: Various years, October 1980 to October 2001**

Enrollment status and year	Male				Female			
	Total employed	Less than 20 hours	20-34 hours	35 or more hours	Total employed	Less than 20 hours	20-34 hours	35 or more hours
<b>Full-time college students</b>								
1980	38.6	19.5	14.6	4.5	40.1	23.5	13.4	3.2
1985	42.1	19.8	17.4	4.9	45.5	24.3	17.4	3.8
1990	42.2	19.0	18.2	5.0	47.4	22.3	20.5	4.6
1991	44.9	18.2	20.1	6.6	48.0	23.7	19.7	4.7
1992	46.1	19.9	19.5	6.7	46.8	21.0	21.4	4.5
1993	44.1	19.4	19.6	5.1	47.0	22.4	19.5	5.1
1994	47.3	18.5	22.2	6.6	48.0	21.6	21.3	5.2
1995	43.6	16.2	19.6	7.8	48.0	21.8	21.0	5.2
1996	45.9	15.1	22.6	8.2	49.1	21.1	22.1	5.9
1997	42.0	15.9	18.9	7.2	51.7	20.4	23.6	7.6
1998	46.9	18.1	19.3	9.5	50.7	22.2	21.9	6.7
1999	47.5	17.7	21.7	8.1	50.7	20.2	22.9	7.6
2000	49.1	17.2	22.6	9.3	52.1	22.6	21.0	8.6
2001	42.7	13.6	19.1	10.0	48.6	20.6	21.8	6.2
<b>Part-time college students</b>								
1980	84.7	5.5	21.6	57.6	81.9	9.8	23.1	48.9
1985	85.9	5.6	26.8	53.5	84.4	6.2	27.0	51.1
1990	85.6	3.0	27.3	55.3	80.2	4.9	24.9	50.4
1991	86.1	6.8	29.2	50.2	83.3	9.5	22.2	51.6
1992	82.6	6.6	31.8	44.2	82.6	8.2	24.1	50.3
1993	86.5	6.8	32.4	47.3	81.4	9.9	30.7	40.8
1994	84.1	7.7	28.8	47.6	85.1	11.3	32.8	40.9
1995	83.9	7.6	27.5	48.8	79.2	9.4	32.7	37.2
1996	83.4	7.3	25.2	51.0	84.0	9.1	29.2	45.7
1997	84.7	7.2	21.9	55.6	82.0	11.2	29.7	41.1
1998	84.8	5.6	26.8	52.4	81.9	8.2	26.8	46.8
1999	82.9	5.7	23.9	53.3	79.5	6.6	32.3	40.5
2000	84.9	9.3	24.4	51.3	83.0	8.0	30.8	44.2
2001	83.7	5.9	27.4	50.4	82.0	9.9	24.5	47.5

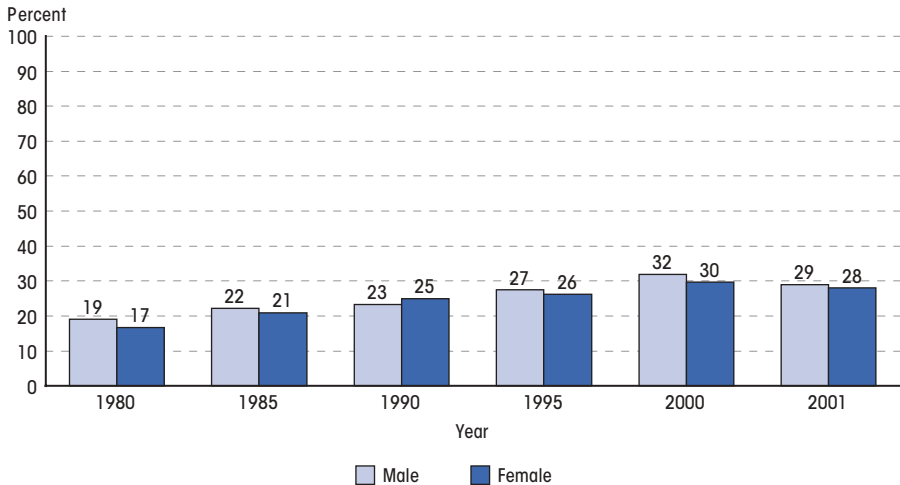
SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), various years, unpublished data.

**Figure 27-A.** Percent of 16- to 24-year-old college students who were employed, by enrollment status and sex: October 1980 to October 2001



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), various years, unpublished data.

**Figure 27-B.** Percent of 16- to 24-year-old full-time college students who were employed and who worked 20 or more hours per week, by sex: Various years, October 1980 to October 2001



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys (CPS), various years, unpublished data.

## 28. Persistence Toward and Completion of a Bachelor's Degree

*Female freshmen seeking a bachelor's degree were more likely than their male peers to complete their degree within 5 years.*

Among 1995–96 freshmen seeking a bachelor's degree, 63 percent reported completing a bachelor's degree by 2001, whereas 18 percent had received no degree and were no longer enrolled in a bachelor's degree program. Fourteen percent of 1995–96 freshmen were still enrolled in a bachelor's degree program in 2001.

By 2001, 1995-96 female freshmen were more likely than their male peers to have earned a bachelor's degree (66 percent vs. 59 percent).

Males were more likely than females to have earned no degree and not be enrolled. They were also more likely than females to still be enrolled in a bachelor's program in 2001. White and Asian/Pacific Islander females were more likely to have earned a bachelor's degree by 2001 than both Black and Hispanic females. Similarly, White and Asian/Pacific Islander males were more likely to have completed a bachelor's degree by 2001 than Black and Hispanic males.

**Table 28. Percentage distribution of 1995-96 freshmen seeking bachelor's degrees, by degree completion and persistence status, sex, and race/ethnicity: Spring 2001**

Sex and race/ethnicity	Status of 1995–96 freshmen by spring 2001						
	Total	Completed a bachelor's	Still enrolled for bachelor's <sup>1</sup>	No bachelor's, no longer enrolled for bachelor's			
				Total	Highest degree completed		
				Associate's	Certificate	No degree <sup>2</sup>	
Total	100.0	62.7	14.2	23.1	2.7	2.1	18.3
Male	100.0	58.7	16.1	25.2	2.2	2.0	21.0
White	100.0	62.7	14.5	22.8	1.8	1.6	19.5
Black	100.0	36.6	19.6	43.8	3.3	5.4	35.1
Hispanic	100.0	43.4	20.8	35.8	5.8	3.5	26.6
Asian/Pacific Islander	100.0	67.9	19.8	12.3	1.0	0.0	11.3
Female	100.0	66.0	12.7	21.3	3.1	2.2	16.1
White	100.0	70.5	10.3	19.3	3.0	2.0	14.3
Black	100.0	50.7	20.8	28.5	2.4	4.5	21.7
Hispanic	100.0	50.8	20.9	28.3	4.3	2.2	21.8
Asian/Pacific Islander	100.0	71.6	8.9	19.4	2.8	0.4	16.2

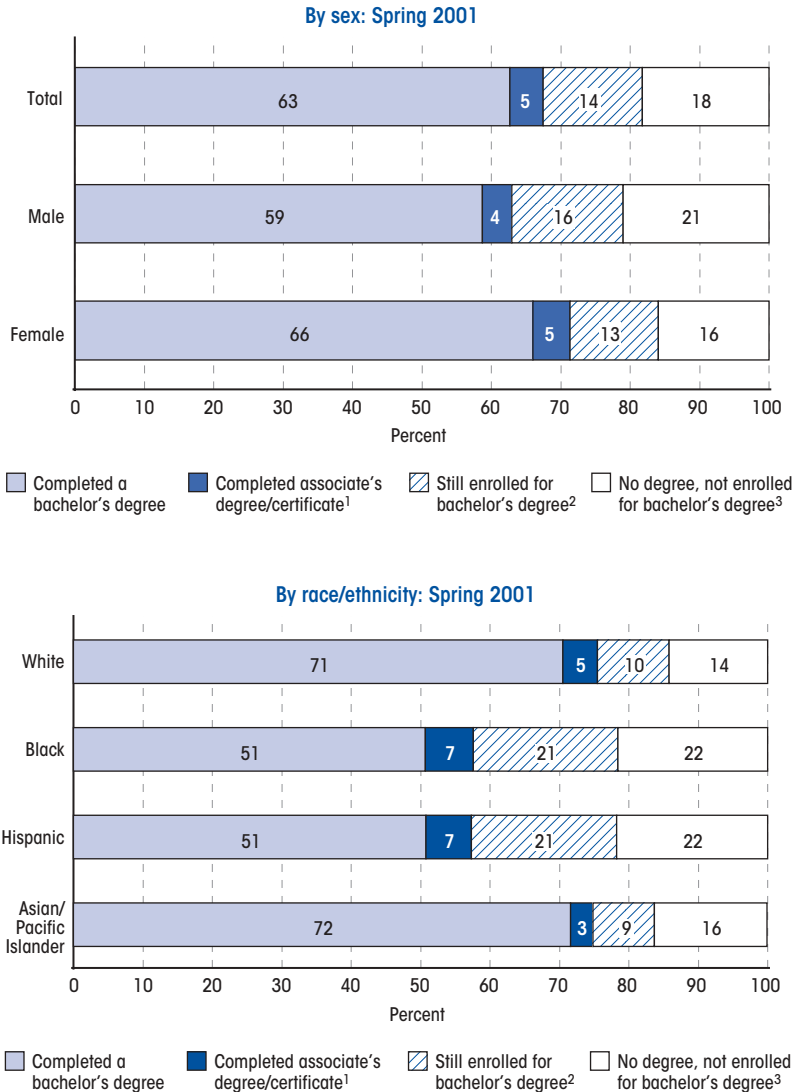
<sup>1</sup>Includes students who had completed another type of degree or award, but who were still working toward a bachelor's degree.

<sup>2</sup>Includes students who were still enrolled, but who were no longer working toward a bachelor's degree.

NOTE: Included in the total but not shown separately are American Indian/Alaska Natives and other race/ethnicities. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS: 96/01), unpublished data.

**Figure 28. Percentage distribution of 1995-96 freshmen seeking bachelor's degrees, by degree completion and persistence status, sex, and race/ethnicity: Spring 2001**



<sup>1</sup>Students who were no longer working toward a bachelor's degree, but who had completed an associate's degree or certificate.

<sup>2</sup>Includes students who had completed another type of degree or award, but who were still working toward a bachelor's degree.

<sup>3</sup>Includes students who were still enrolled, but who were no longer working toward a bachelor's degree.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS: 96/01), unpublished data.

## 29. Undergraduate Degrees

*Females currently earn 57 percent of all bachelor's degrees, reflecting steady increases since the early 1970s.*

Over the past 30 years, the percentage of bachelor's degrees conferred to females has increased; females earned 43 percent of bachelor's degrees in 1970, compared to 57 percent in 2001. The percentage of degrees conferred to females exceeded that of the degrees conferred to males within many fields of study in 2001, such as health professions and related sciences (84 percent), psychology (78 percent), education (77 percent), accounting (61 percent), and biological/life sciences (60 percent). Fields in which females represented about half of bachelor's degree recipients included mathematics (48 percent), business management and administrative services (49 percent), and social sciences and history (52 percent).

Historically, degrees in female majority fields, such as health professions and education, have

led to lower paying occupations than degrees in more technically oriented male majority fields, such as engineering and physical sciences and science technologies. The proportion of bachelor's degrees conferred to females in technical fields has generally increased in recent decades. For example, the percentage of bachelor's degrees conferred to females in physical sciences and science technologies increased from 14 percent in 1970 to 41 percent in 2001. However, the pattern of growth in technical fields has not always been consistent since 1970. For example, in computer and information sciences, females accounted for 13 percent of bachelor's degrees in 1970, rising to 37 percent in 1985, but falling to 30 percent in 1990, with a gradual decline to 28 percent in 2001.

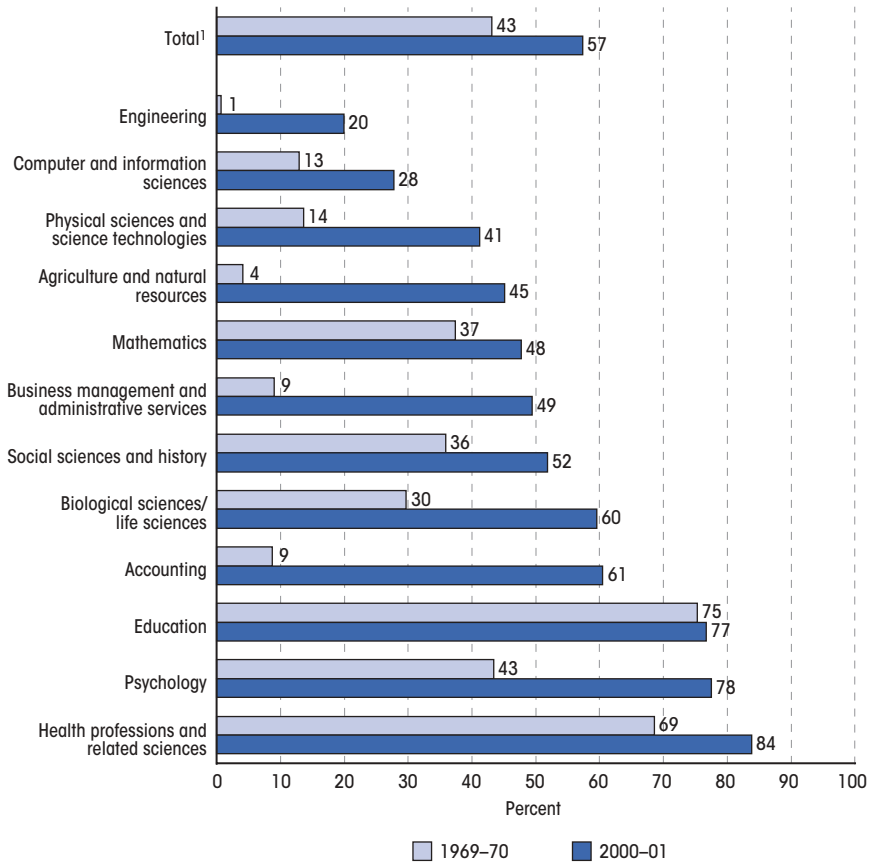
**Table 29. Percent of bachelor's degrees conferred to females, by selected fields of study: Various years, 1969–70 to 2000–01**

Field of study	1969–70	1974–75	1979–80	1984–85	1989–90	1994–95	1999–2000	2000–01
Total <sup>1</sup>	43.1	45.3	49.0	50.7	53.2	54.6	57.2	57.3
Agriculture and natural resources	4.1	14.1	29.6	31.1	31.6	36.0	42.9	45.1
Accounting	8.7	17.7	36.1	49.1	53.3	56.2	60.4	60.5
Biological sciences/life sciences	29.7	33.1	42.1	47.8	50.8	52.3	58.3	59.5
Business management and administrative services	9.0	16.2	33.1	44.9	46.5	47.7	49.5	49.4
Computer and information sciences	12.9	18.9	30.2	36.8	29.9	28.4	28.1	27.7
Education	75.3	73.3	73.8	75.9	78.1	75.8	75.8	76.7
Engineering	0.7	2.2	9.3	13.1	13.8	15.6	20.4	19.9
Health professions and related sciences	68.6	77.7	82.2	84.9	84.4	81.9	83.8	83.8
Mathematics	37.4	41.2	41.5	46.2	45.7	46.8	47.1	47.7
Physical sciences and science technologies	13.6	18.2	23.7	28.0	31.3	34.8	40.3	41.2
Psychology	43.4	52.6	63.3	68.2	71.5	72.9	76.5	77.5
Social sciences and history	35.9	37.3	43.6	44.1	44.2	46.8	51.2	51.8

<sup>1</sup>Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey"; and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:90–01), various years, 1989–90 through 2000–01.

**Figure 29. Percent of bachelor's degrees conferred to females, by selected fields of study: 1969-70 and 2000-01**



<sup>1</sup>Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey"; and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.

### 30. Undergraduate Degrees for Minority Females

*Minority females are more likely than minority males to earn bachelor's degrees.*

The general increase in the proportion of bachelor's degrees conferred to females (*indicator 29*) has been reflected in increases in the proportion of bachelor's degrees conferred to minority females. In 2000-01, White females received 57 percent of the bachelor's degrees conferred to White students. Among certain minority groups, female representation among bachelor's degree recipients was even higher; Black, Hispanic, and American Indian/Alaska Native females earned 66, 60, and 59 percent, respectively, of the degrees conferred to students in their respective racial/ethnic groups. Comparatively, Asian/Pacific Islander females earned a slightly lower proportion (55 percent) of the degrees conferred to Asian/Pacific Islander students.

These patterns were generally evident when looking at degrees by fields of study. For example, Black females earned a majority of the degrees conferred to Blacks in 12 out of the 14 specific major fields compared to 7 out of 14 for White females. Differences in representation were particularly evident in certain technical fields. Black

females earned 47 percent of the bachelor's degrees conferred to Blacks in computer and information sciences and 36 percent of the degrees in engineering. In contrast, White females earned 22 percent of the degrees conferred to Whites in computer and information sciences and 18 percent of the degrees in engineering. The only exceptions where White females earned higher proportions of degrees within their respective racial/ethnic group than Black females were education and visual and performing arts.

Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native females also earned a majority of the degrees conferred within their racial or ethnic groups in more than half of the 14 specific major fields. In many technical fields such as computer and information sciences, engineering, and physical sciences and science technologies, females from each of these minority groups received higher proportions of the degrees conferred to their racial/ethnic groups compared with White females.

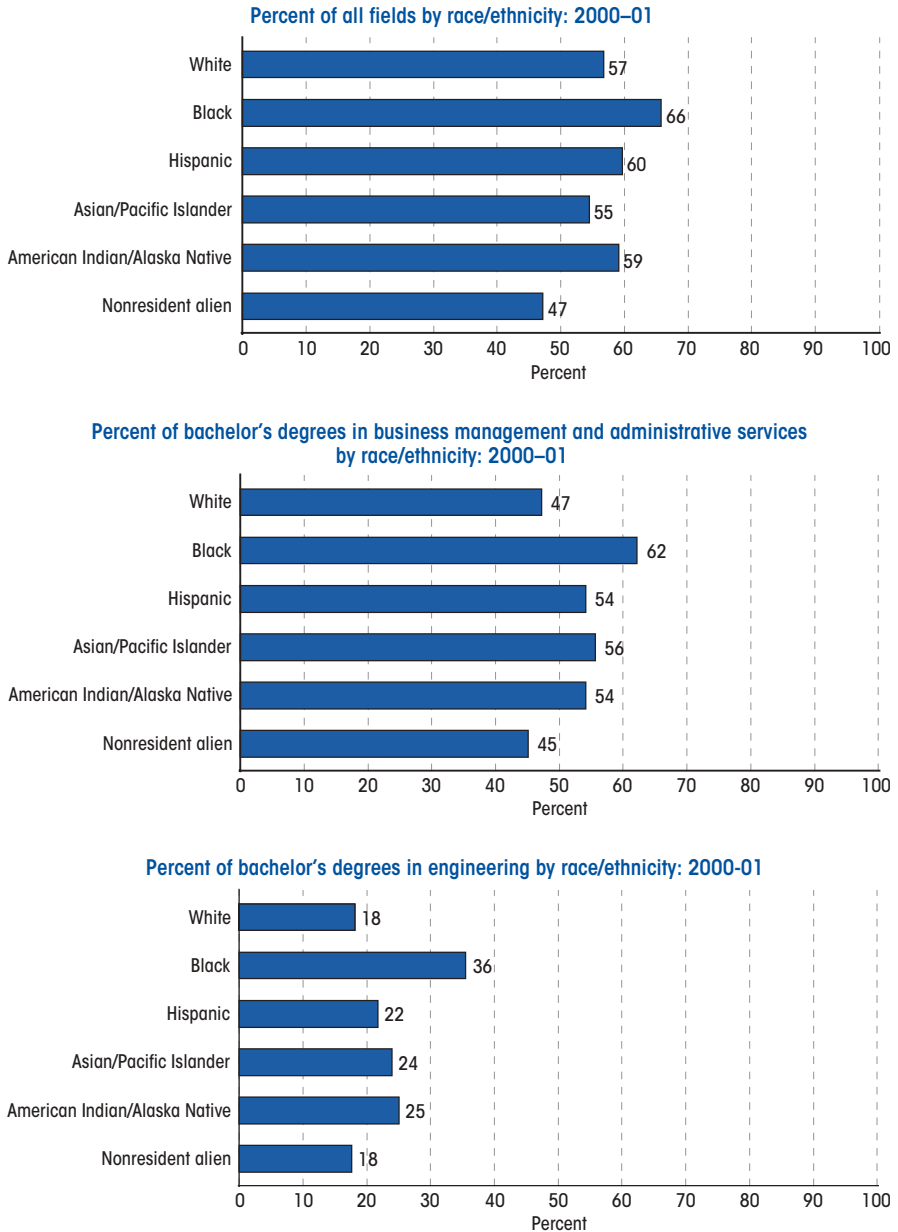
**Table 30. Percent of bachelor's degrees conferred to females, by race/ethnicity and selected fields of study: 2000-01**

Field of study	U.S. citizens and permanent residents					
	White	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaska Native	Nonresident alien
Total <sup>1</sup>	56.7	65.8	59.7	54.5	59.1	47.2
Agriculture and natural resources	44.1	54.4	49.2	59.3	45.0	46.6
Biological sciences and life sciences	58.7	71.8	57.4	57.1	55.0	59.5
Business management and administrative services	47.2	62.2	54.1	55.6	54.1	45.1
Communications	61.5	65.1	70.3	69.6	66.9	65.7
Computer and information sciences	22.3	46.6	31.0	32.6	28.7	31.1
Education	77.1	73.2	78.0	73.4	74.5	72.1
Engineering	18.1	35.5	21.7	23.9	25.0	17.6
English language and literature	67.4	76.3	69.9	72.0	64.1	75.9
Health professions and related sciences	84.4	86.3	78.8	76.3	83.2	79.7
Mathematics	47.6	55.4	47.1	46.5	48.1	36.3
Physical sciences and science technologies	39.1	57.5	40.6	48.6	45.6	40.8
Psychology	77.5	79.3	77.2	74.8	72.1	79.0
Social sciences and history	49.6	54.9	55.4	55.0	56.5	49.5
Visual and performing arts	59.7	53.6	52.4	61.4	58.1	61.6
Other	59.5	61.0	56.7	59.4	0.0	62.1

<sup>1</sup>Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.

**Figure 30. Percent of bachelor's degrees, degrees in business management and administrative services, and degrees in engineering conferred to females, by race/ethnicity: 2000-01**



NOTE: Race/ethnicity is shown for U.S. citizens and permanent residents only. Nonresident aliens are shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.



### 31. Graduate Degrees

*The proportion of graduate-level degrees conferred to females has increased in the past 30 years.*

Overall, females earned 59 percent of all master's degrees in 2001, compared to 40 percent in 1970. Although females remain underrepresented in certain traditionally male-majority fields, the proportion of master's degrees conferred to females in these fields has nevertheless increased. For instance, between 1970 and 2001, the percentage of master's degrees earned by females increased from 4 to 41 percent in business management, 1 to 21 percent in engineering, and 14 to 37 percent in the physical sciences and science technologies.

Although females, at 46 percent, earned less than half of all first-professional degrees conferred in 2001, the percentage of degrees earned by females in dentistry, medicine, and law increased from less

than 1, 8, and 5 percent, respectively in 1970 to 39, 43, and 47 percent, respectively, in 2001.

Females received 45 percent of all doctor's degrees in 2001, up from 13 percent in 1970. In 2001, males earned a greater percentage of doctor's degrees across most fields, with exceptions being education (65 percent female), psychology (68 percent female), and health professions and related sciences (61 percent female). The percentage of doctor's degrees earned by females increased to 44 percent in biological and life sciences and 41 percent in social sciences and history. However, females still lag further behind in more technical fields, such as engineering (17 percent female) and computer and information sciences (18 percent female).

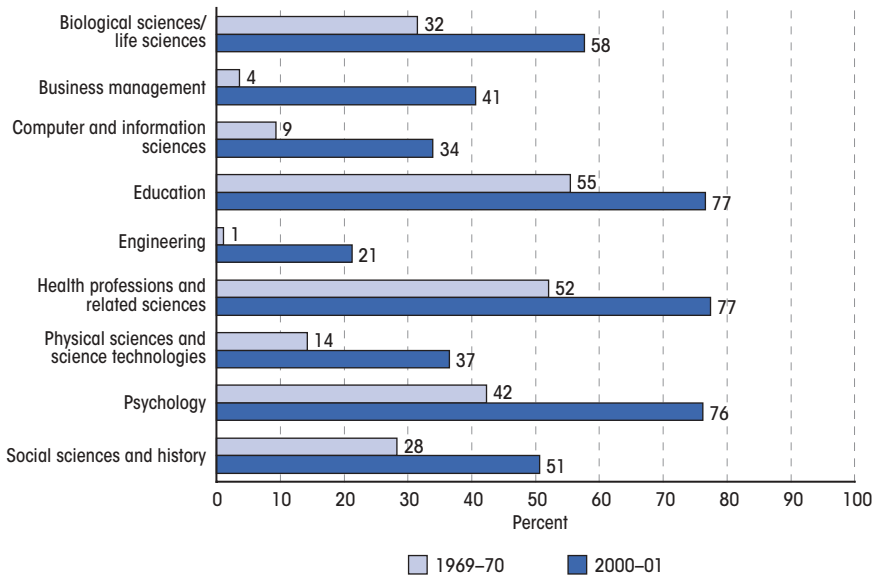
**Table 31. Percent of master's, first-professional, and doctor's degrees conferred to females, by selected fields of study: Various years, 1969-70 to 2000-01**

Degree and selected field of study	1969-70	1974-75	1979-80	1984-85	1989-90	1994-95	1999-2000	2000-01
Master's degrees	39.7	44.8	49.4	49.9	52.6	55.1	58.0	58.5
Biological sciences/life sciences	31.5	30.0	37.1	47.7	50.8	51.8	55.3	57.6
Business management	3.6	8.5	22.4	31.0	34.0	37.0	39.8	40.6
Computer and information sciences	9.3	14.7	20.9	28.7	28.1	26.1	33.3	33.9
Education	55.4	62.3	70.2	72.5	75.9	76.5	76.4	76.6
Engineering	1.1	2.4	7.0	10.7	13.8	16.3	20.7	21.2
Health professions and related sciences	52.0	61.7	72.3	76.3	77.7	78.4	77.3	77.4
Physical sciences and science technologies	14.2	14.4	18.6	23.2	26.4	30.2	35.4	36.5
Psychology	42.3	46.4	58.8	65.1	68.5	72.0	75.4	76.2
Social sciences and history	28.3	30.1	36.0	38.4	40.7	44.7	50.1	50.6
First-professional degrees <sup>1</sup>	5.3	12.4	24.8	32.8	38.1	40.8	44.6	45.6
Dentistry	0.9	3.1	13.3	20.7	30.9	36.4	40.1	38.6
Medicine	8.4	13.1	23.4	30.4	34.2	38.8	42.7	43.3
Law	5.4	15.1	30.2	38.5	42.2	42.6	45.9	47.3
Doctor's degrees	13.3	21.3	29.7	34.1	36.4	39.4	44.1	44.9
Business management	1.6	4.2	14.7	17.2	25.2	27.3	31.9	33.5
Biological sciences/life sciences	14.3	22.0	26.0	32.8	37.7	40.3	44.1	44.1
Computer and information sciences	1.9	6.6	11.3	10.1	14.8	18.2	16.9	17.7
Education	19.8	30.4	43.9	52.0	57.3	62.0	64.6	64.9
Engineering	0.7	2.1	3.8	6.4	8.9	11.9	15.5	16.5
Health professions and related sciences	16.2	28.6	44.7	52.9	54.2	58.1	61.2	60.9
Physical sciences and science technologies	5.4	8.3	12.4	16.2	19.4	23.5	25.5	26.8
Psychology	23.3	32.1	43.4	49.6	58.9	62.6	67.4	68.3
Social sciences and history	12.8	20.8	27.0	32.2	32.9	37.7	41.2	41.4

<sup>1</sup>First-professional degrees are degrees awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Pharm.), podiatric medicine (D.P.M.), veterinary medicine (D.V.M.), chiropractic medicine (D.C. or D.C.M.), law (J.D.), and the theological professions (M.Div. or M.H.L.).

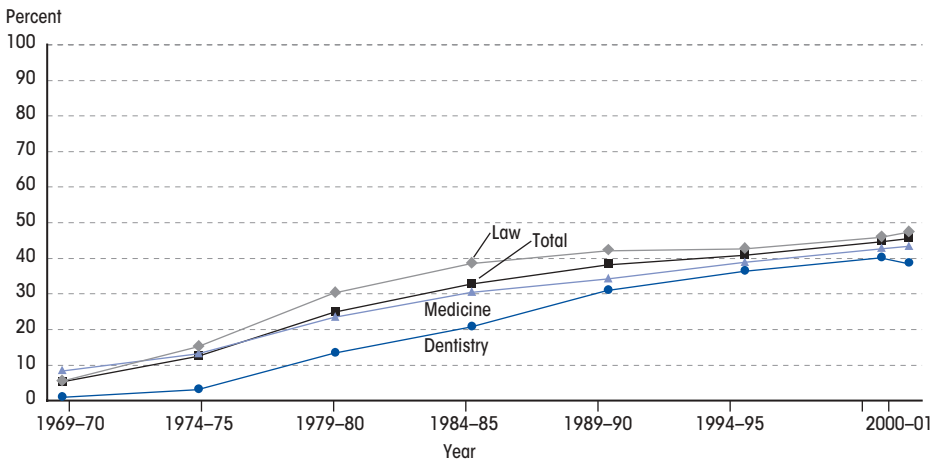
SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey"; and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:90-01), various years, 1989-90 through 2000-01.

**Figure 31-A. Percent of master's degrees conferred to females in selected fields of study: 1969-70 and 2000-01**



SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey"; and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.

**Figure 31-B. Percent of first-professional degrees conferred to females in selected fields of study: Various years, 1969-70 to 2000-01**



SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey"; and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:90-01), various years, 1989-90 through 2000-01.

### 32. Adult Education

*Females are more likely than males to participate in adult education.*

Adult education activities include basic skills courses, English as a second language (ESL) courses, credential (degree or diploma) programs, apprenticeships, work-related courses, and personal development/interest courses. Despite an increase in male participation in adult education activities between 1999 and 2001, females participated in adult education activities more frequently than males in both 1999 and 2001. However, participation levels differed among only one type of adult education activity in 2001; females were more likely than males to participate in personal development activities. In contrast, males and females had similar rates of participa-

tion in basic skills education and work-related adult education.

For both males and females in 2001, the rates of participation in adult education were generally higher among those who had completed at least some postsecondary education compared to those who had received a high school diploma or less. Among adults who had completed high school, 31 percent of males and 37 percent of females participated in adult education. Of the adults who had completed a bachelor's degree or higher, 63 percent of males and 73 percent of females were involved in some type of adult education activity.

**Table 32. Percent of adults participating in adult education activities during the previous 12 months, by type of activity, sex, and highest level of educational attainment: 1999 and 2001**

Sex and educational attainment	1999	2001, by type of adult education activity				
	Total	Total	Basic skills <sup>1</sup>	Credential	Work related	Personal development
		<b>Male</b>				
Total	42.5	45.5	0.9	9.5	30.8	16.8
<b>Educational attainment</b>						
Grades 9-12 <sup>2</sup>	18.2	19.9	4.5	0.8	9.3	8.8
High school diploma or GED	31.1	30.9	0.4	5.7	18.7	12.0
Vocational/technical school	30.1	39.4	3.6	3.3	26.4	16.5
Some college	52.6	58.8	0.4	24.2	33.9	20.8
Associate's degree	53.8	59.9	0.1	10.5	44.7	18.6
Bachelor's degree or higher	56.6	62.7	†	9.1	49.4	22.6
			<b>Female</b>			
Total	50.1	52.6	0.9	10.5	32.2	26.8
<b>Educational attainment</b>						
Grades 9-12 <sup>2</sup>	21.4	23.4	3.8	1.1	11.0	11.8
High school diploma or GED	37.5	36.5	0.3	5.3	20.5	19.3
Vocational/technical school	44.3	51.8	0.4	1.8	33.6	25.5
Some college	62.1	67.2	1.5	22.7	35.2	33.3
Associate's degree	58.7	68.5	0.3	16.2	47.3	29.8
Bachelor's degree or higher	68.8	72.8	†	12.7	51.8	38.5

† Not applicable.

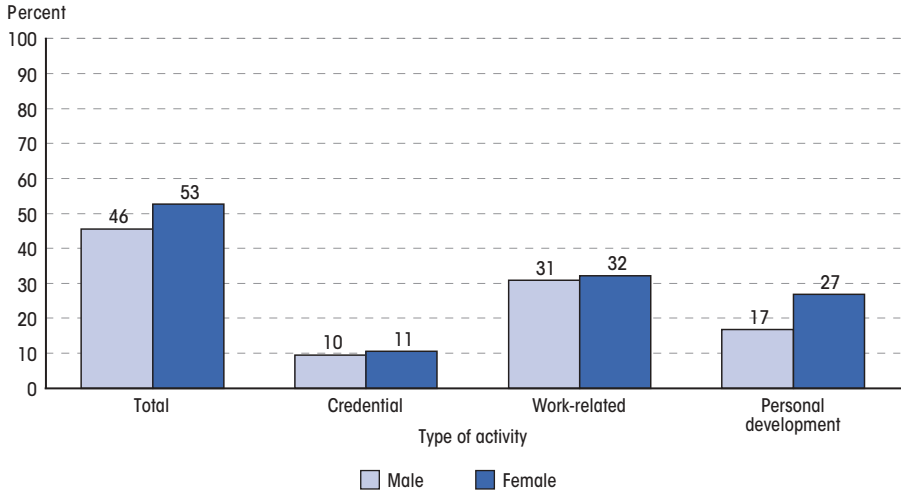
<sup>1</sup>Basic skills courses include both courses and tutoring in basic math, reading, and writing skills as well as General Educational Development (GED) or other high school equivalency courses. Only adults who had received a high school diploma or equivalent in the past 12 months, or who had received a high school diploma in a foreign country, or who had never completed high school were asked about their participation in the basic education/GED activities.

<sup>2</sup>Includes adults whose highest education level was grades 9-12 who had not received a high school diploma.

NOTE: Detail may not sum to totals because adults could report participation in more than one adult education activity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Education Survey of the NHES Program (AE-NHES:2001), unpublished data.

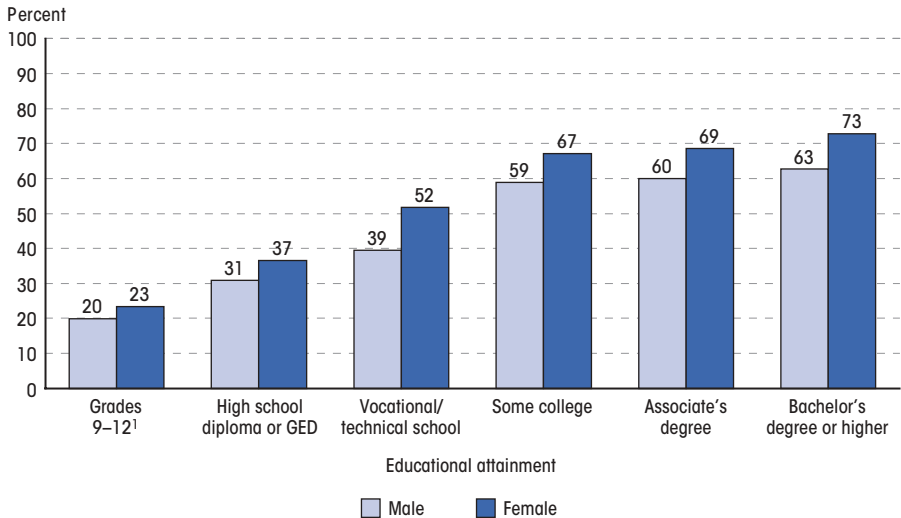
**Figure 32-A. Percent of adults participating in adult education activities during the previous 12 months, by type of activity and sex: 2001**



NOTE: Detail may not sum to totals because adults could report participation in more than one adult education activity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Education Survey of the NHES Program (AE-NHES:2001), unpublished data.

**Figure 32-B. Percent of adults participating in adult education activities during the previous 12 months, by highest level of educational attainment and sex: 2001**



<sup>1</sup>Includes adults whose highest education level was grades 9-12 who had not received a high school diploma.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Education Survey of the NHES Program (AE-NHES:2001), unpublished data.

### 33. Educational Attainment

*Young adult females have attained similar or higher levels of education compared to males.*

Younger generations of females, those ages 39 or younger, essentially have attained parity or have surpassed males in attainment of bachelor's and higher level degrees. For example, in 2002, 25 percent of females ages 25-29 had earned a bachelor's degree, approximately 3 percentage points higher than the percentage of males who had done so. The percentage of females ages 25-29 who had a master's or higher degree was also larger than that of their male peers. Similarly, among the population ages 30-39, a higher percentage of females than males had a bachelor's degree, and similar percentages of males and females had a master's or higher degree.

Overall, across the adult population ages 25 or older, similar percentages of males and females had a bachelor's degree in 2002. However, the percentage of females who had a master's or higher

degree was about 2 percentage points lower than the percentage of males. Nevertheless, with more females graduating with a master's or higher degree in recent years, this educational gap between females and males continues to narrow (*Digest of Education Statistics 2002*).

There are differences in the educational attainment levels of 25- to 29-year-olds across race/ethnicity. In 2002, White females ages 25-29 were more likely than their Black or Hispanic peers to have a bachelor's or master's or higher degree. Black females were more likely than Hispanic females to have a bachelor's or master's or higher degree. Within racial/ethnic groups, White females were more likely than White males to have a bachelor's or master's or higher degree, while Black females were more likely than Black males to have a master's or higher degree.

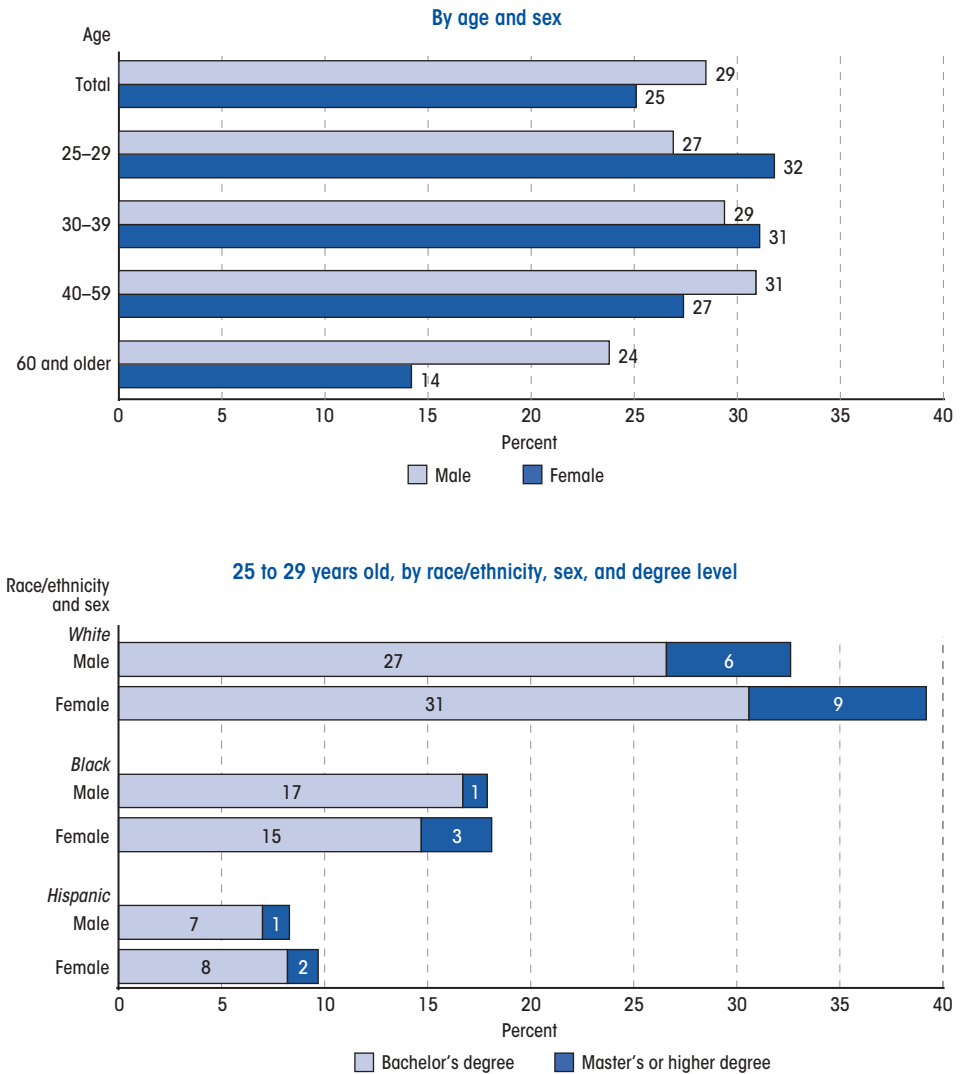
**Table 33. Percentage distribution of persons ages 25 and older who attained various levels of education, by sex, age, and race/ethnicity: March 2002**

Age and race/ethnicity	Highest level of educational attainment									
	Less than high school completion		High school completion		Associate's degree/some college		Bachelor's degree		Master's or higher degree	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Age 25 and older	16.2	15.6	31.0	33.1	24.3	26.2	18.3	17.2	10.2	7.9
25-29	15.3	11.9	30.2	26.6	27.6	29.7	22.0	24.8	4.9	7.0
White	7.9	6.2	30.2	24.3	29.4	30.3	26.6	30.6	6.0	8.6
Black	14.2	11.1	34.0	34.3	33.9	36.5	16.7	14.7	1.2	3.4
Hispanic	39.8	35.0	31.9	30.9	20.1	24.4	7.0	8.2	1.3	1.5
30-39	13.8	10.9	31.0	29.2	25.8	28.9	20.7	22.3	8.7	8.7
40-59	12.2	11.3	31.3	32.8	25.6	28.5	18.6	17.7	12.3	9.6
60 and older	27.0	27.5	30.7	39.3	18.5	19.1	13.5	9.3	10.3	4.9

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), March 2002, unpublished data.

**Figure 33. Percent of persons ages 25 and older who attained a bachelor's or higher degree, by age, race/ethnicity, and sex: March 2002**



SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), March 2002, unpublished data.

### 34. International Educational Attainment

*Among 25- to 34-year-olds in selected large, industrialized countries, females are more likely than males to have completed postsecondary education.*

In the United States and eight other large, industrialized countries in 2001, sex differences in the completion of secondary education were generally small among people ages 25–34. The differences in the percentages of males and females who completed at least secondary education ranged from 6 percentage points (favoring females) in Finland to 5 percentage points (favoring males) in the United Kingdom. Among those ages 45–54, the sex differences were somewhat larger and favored males in a majority of the countries. In the United States, however, sex differences for both age groups were relatively small compared to other countries; this reflects a historic pattern of relative equality among males

and females in completion of secondary education in the United States.

In the United States, 42 percent of 25- to 34-year-old females completed postsecondary education, compared with 36 percent of their male peers. At the postsecondary level in the majority of countries, younger females (ages 25–34) were more likely than their male peers to have completed postsecondary education. The differences ranged from 16 percentage points (favoring females) in Finland to 7 percentage points (favoring males) in Korea. Among those ages 45–54, males were more likely than females to have completed postsecondary education in most of the countries shown.

**Table 34. Percent of the population who completed upper secondary and postsecondary education, by age, sex, and selected industrialized country: 2001**

Country	25- to 34-year-olds				45- to 54-year-olds			
	Male		Female		Male		Female	
	Upper secondary	Post-secondary	Upper secondary	Post-secondary	Upper secondary	Post-secondary	Upper secondary	Post-secondary
OECD average <sup>1</sup>	73.5	26.3	74.3	29.1	63.8	22.9	56.6	19.3
Canada	88.2	45.2	90.5	56.0	80.9	38.1	81.0	40.4
Finland	83.7	30.4	90.1	46.4	68.2	28.4	71.8	30.6
France <sup>2</sup>	78.3	31.8	78.4	36.6	62.3	19.2	54.5	18.4
Germany	86.9	23.3	84.0	20.2	87.8	30.7	77.9	18.5
Italy	54.9	10.3	60.1	13.3	41.7	11.3	35.4	9.6
Japan	91.9	46.1	95.4	49.3	80.5	32.0	81.7	24.7
Korea	94.9	42.2	90.9	35.3	61.5	18.9	35.3	7.1
United Kingdom <sup>2</sup>	69.9	30.0	64.8	29.0	70.9	28.0	51.5	24.0
United States	87.4	36.2	88.8	41.8	89.0	41.1	89.3	38.0

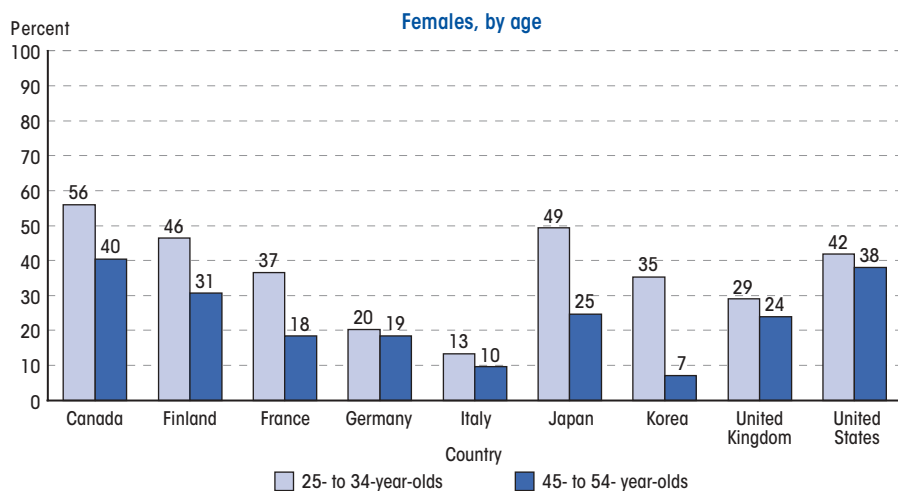
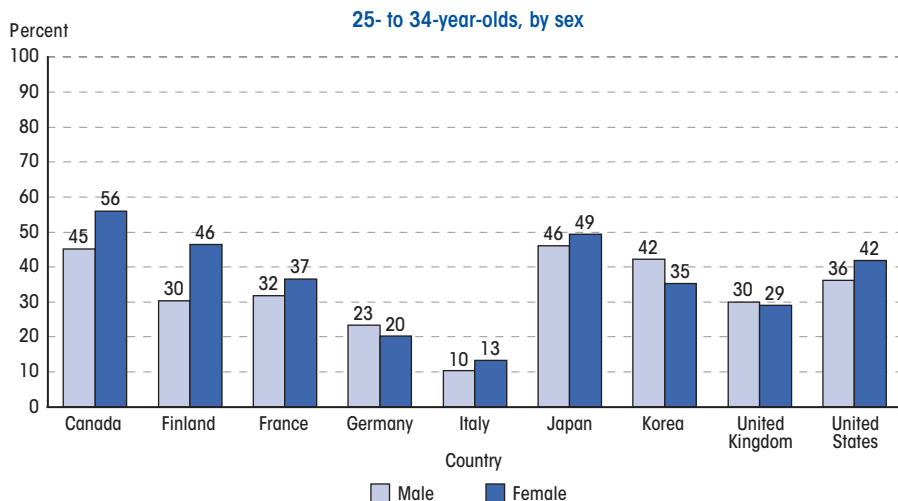
<sup>1</sup>The OECD average reflects the average of 30 member countries of the Organisation for Economic Co-operation and Development.

<sup>2</sup>Classification standards for upper secondary education vary from other countries; not all International Standard Classification of Education (ISCED) 3 (upper secondary) programs meet minimum requirements for ISCED 3C long programs.

NOTE: Levels of education are defined by the ISCED-97. Upper secondary education corresponds to the final stage of secondary education in most OECD countries, and may be terminal (preparing students for direct entry into the workforce) or preparatory (preparing students for postsecondary or tertiary education). Upper secondary education includes those who had completed at least an upper secondary education. In the United States, upper secondary completion is equivalent to high school graduation. Postsecondary education includes those who have completed either vocational or academic postsecondary education. See <http://www.oecd.org/els/education/eag2002> for more information on the ISCED.

SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.

**Figure 34-A. Percent of persons who completed postsecondary education, by age, sex, and selected industrialized country: 2001**



NOTE: Levels of education are defined by the International Standard Classification of Education (ISCED-97). Upper secondary education corresponds to the final stage of secondary education in most OECD countries, and may be terminal (preparing students for direct entry into the workforce) or preparatory (preparing students for postsecondary or tertiary education). Upper secondary education includes those who had completed at least an upper secondary education. In the United States, upper secondary completion is equivalent to high school graduation. Postsecondary education includes those who have completed either vocational or academic postsecondary education. See <http://www.oecd.org/els/education/eag2002> for more information on the ISCED.

SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.







## OUTCOMES

- 35. Employment of Young Adults
- 36. Median Earnings of Young Females
- 37. International Labor Force Participation
- 38. Education and Earnings

### 35. Employment of Young Adults

*Employment rates for females have increased across all levels of educational attainment since the 1970s.*

Employment rates for females have increased over the past three decades. The percentage of 25- to 34-year-old females who were employed increased across all levels of educational attainment. Increases were generally equivalent throughout the 1970s, 1980s, and 1990s.

The gap between male and female employment rates of 25- to 34-year-olds has narrowed since the 1970s. Both the decline in employment rates

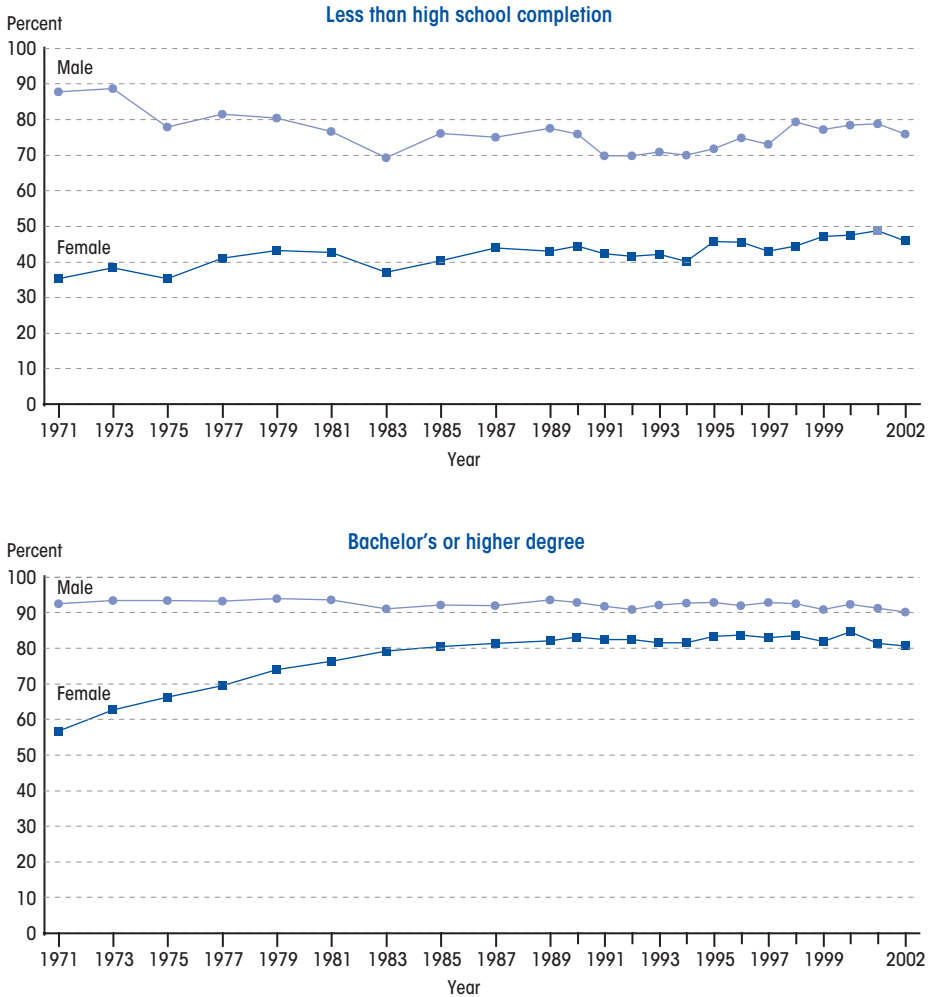
of males who did not attend college and the increase in the employment rate of females across all education levels contributed to the overall narrowing of the gap. In 2002, the gender gaps in employment rates were smaller among people with higher levels of education compared to those with a high school diploma or less. However, males continued to have higher employment rates across all levels of education.

**Table 35. Percent of 25- to 34-year-olds who were employed, by sex and level of educational attainment: Various years, March 1971 to March 2002**

Year	Male				Female			
	Less than high school completion	High school diploma or GED	Associate's degree or some college	Bachelor's degree or higher	Less than high school completion	High school diploma or GED	Associate's degree or some college	Bachelor's degree or higher
1971	87.9	93.6	89.9	92.5	35.4	43.1	44.9	56.9
1973	88.8	93.8	88.5	93.5	38.4	46.5	51.0	62.7
1975	78.0	88.4	87.7	93.5	35.4	48.1	53.6	66.3
1977	81.5	89.5	89.1	93.3	41.0	53.0	58.0	69.5
1979	80.5	91.3	90.9	94.1	43.2	58.0	64.2	74.0
1981	76.7	86.9	88.5	93.7	42.7	61.3	67.6	76.4
1983	69.3	78.6	83.8	91.1	37.1	58.8	68.3	79.2
1985	76.1	86.1	89.7	92.2	40.3	63.9	71.0	80.6
1987	75.0	86.8	89.0	92.1	44.0	65.6	72.2	81.4
1989	77.6	87.8	91.1	93.7	43.0	66.9	74.0	82.1
1990	76.0	88.6	89.7	93.0	44.4	67.5	74.5	83.2
1991	69.9	84.9	88.6	91.8	42.3	67.0	73.5	82.6
1992	69.9	84.7	86.7	90.9	41.7	65.4	74.0	82.5
1993	71.0	83.6	87.2	92.3	42.2	66.0	73.0	81.6
1994	70.0	85.2	88.0	92.8	40.1	66.2	74.3	81.6
1995	71.8	86.6	89.6	92.9	45.8	67.2	73.0	83.4
1996	74.9	86.3	87.6	92.1	45.5	66.3	76.4	83.7
1997	73.0	85.6	90.0	93.0	43.1	69.6	75.3	83.1
1998	79.3	85.9	87.9	92.5	44.4	69.4	76.0	83.6
1999	77.2	88.0	87.4	91.0	47.2	69.5	76.1	82.0
2000	78.4	88.3	88.4	92.4	47.6	70.7	76.0	84.6
2001	78.8	85.5	86.9	91.3	48.8	70.9	76.4	81.4
2002	75.9	82.2	85.8	90.3	46.0	66.3	74.9	80.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), various years, unpublished data.

**Figure 35. Percent of 25- to 34-year-olds who were employed, by sex and level of educational attainment: Various years, March 1971 to March 2002**



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), various years, unpublished data.

### 36. Median Earnings of Young Females

*Among young adults with a bachelor's or higher degree, females earn about 78 percent of what males earn.*

Among full-time year-round wage and salary workers in 2000, the median annual earnings of young adult females were generally lower than those of their male peers with similar educational attainments. For instance, females ages 25-34 with a high school diploma had median earnings of \$21,411 in 2000, compared to \$29,443 earned by their male peers. Similarly, among those with a bachelor's or higher degree, females earned \$36,353 per year, while males earned \$46,431.

Although the earnings gaps between young males and females persisted through 2000, they were narrower compared to 1970. In 1970, females ages 25-34 whose highest credential was a high

school diploma had median annual earnings that were equivalent to 63 percent of the earnings of their male peers. By 2000, this percentage had risen to 73 percent. Similarly, among those with a bachelor's or higher degree, females' median annual earnings as a percentage of males' earnings rose from 71 percent in 1970 to 78 percent in 2000. Still, males with bachelor's degrees earned more than females with master's degrees.

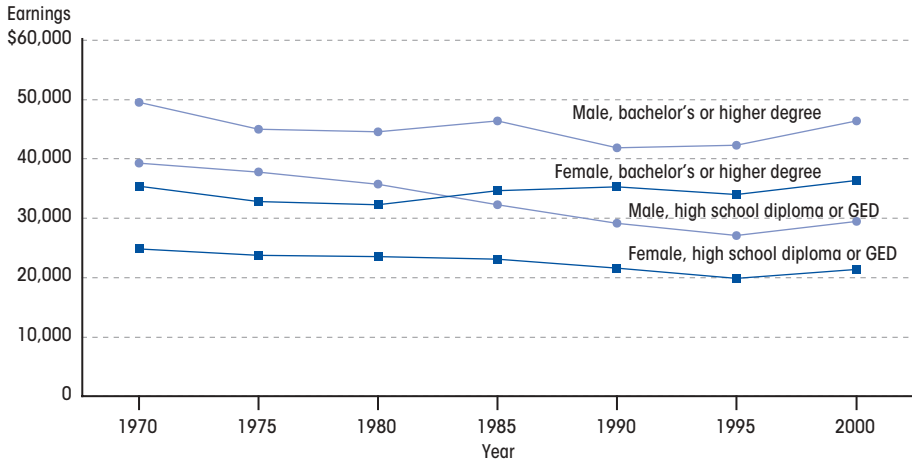
More educated females generally earned more than females with lower attainment, the exception being that no differences were detected between those at the master's and first-professional degree levels.

**Table 36. Median annual earnings (in constant 2000 dollars) of full-time year-round wage and salary workers 25 to 34 years old with a high school diploma or GED as a terminal degree, or a bachelor's degree or higher, by sex: 1970 to 2000**

Year	High school diploma or GED			Bachelor's or higher degree		
	Median annual earnings	Female	Females' earnings as a proportion of males'	Median annual earnings	Female	Females' earnings as a proportion of males'
1970	\$39,277	\$24,858	0.63	\$49,591	\$35,454	0.71
1971	39,139	24,673	0.63	49,026	35,575	0.73
1972	40,734	25,207	0.62	49,858	35,749	0.72
1973	41,331	24,279	0.59	50,036	35,149	0.70
1974	39,322	23,519	0.60	47,174	32,820	0.70
1975	37,774	23,814	0.63	45,018	32,809	0.73
1976	37,642	24,277	0.64	45,548	33,020	0.72
1977	38,677	24,848	0.64	45,133	32,019	0.71
1978	39,764	24,313	0.61	45,171	31,265	0.69
1979	38,049	23,511	0.62	43,880	30,937	0.71
1980	35,711	23,499	0.66	44,582	32,320	0.72
1981	33,862	22,268	0.66	42,406	31,136	0.73
1982	32,686	21,847	0.67	40,770	30,776	0.75
1983	32,927	22,065	0.67	42,615	30,767	0.72
1984	33,867	22,516	0.66	43,078	32,261	0.75
1985	32,278	23,085	0.72	46,426	34,682	0.75
1986	32,176	22,757	0.71	45,864	34,487	0.75
1987	32,251	23,034	0.71	46,161	33,814	0.73
1988	31,747	22,493	0.71	45,162	34,962	0.77
1989	30,196	22,350	0.74	44,304	35,883	0.81
1990	29,138	21,582	0.74	41,925	35,332	0.84
1991	28,441	22,067	0.78	44,469	34,358	0.77
1992	27,917	21,746	0.78	43,798	34,629	0.79
1993	26,790	21,375	0.80	43,055	35,759	0.83
1994	27,625	20,817	0.75	42,022	34,410	0.82
1995	27,091	19,833	0.73	42,309	33,994	0.80
1996	27,899	20,527	0.74	42,475	33,027	0.78
1997	28,007	21,298	0.76	43,141	34,386	0.80
1998	28,626	21,887	0.76	44,209	35,055	0.79
1999	28,640	20,948	0.73	45,234	36,801	0.81
2000	29,443	21,411	0.73	46,431	36,353	0.78

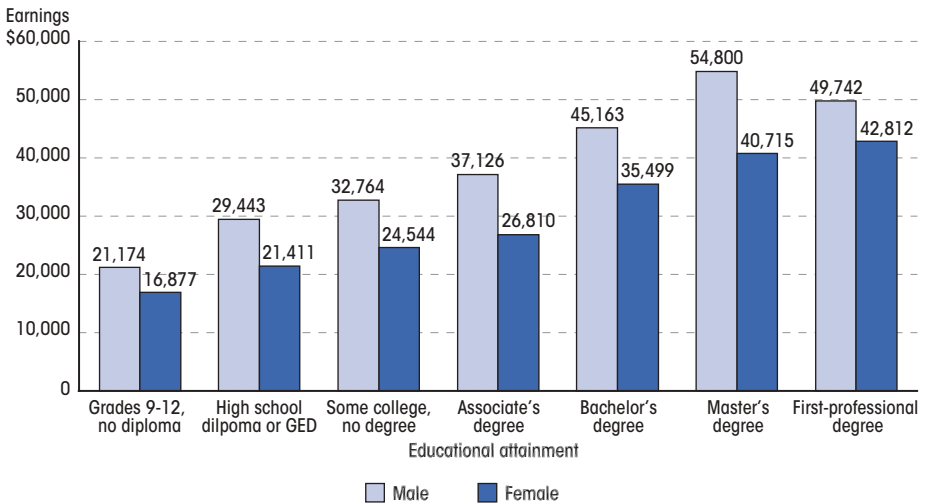
SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), various years, unpublished data.

**Figure 36-A.** Median annual earnings (in constant 2000 dollars) of full-time year-round wage and salary workers 25 to 34 years old with a high school diploma or GED as a terminal degree, or a bachelor's or higher degree, by sex: Various years, 1970 to 2000



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), various years, unpublished data.

**Figure 36-B.** Median annual earnings of full-time year-round wage and salary workers 25 to 34 years old, by highest level of educational attainment and sex: 2000



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), 2000, unpublished data.

### 37. International Labor Force Participation

*The labor force participation rate for females is lower than that for males at every educational level in selected large, industrialized countries.*

In the selected six large, industrialized countries, labor force participation rates for females ages 25-64 were generally positively associated with educational attainment level; females with higher educational attainment levels had higher labor force participation rates than those with lower levels of educational attainment.

With the exception of Italy, overall labor force participation rates for females in large, industrialized countries were similar. Labor force participation rates for females have increased in all six of the countries shown from 1995 to 2001.

Excluding Italy, more than two-thirds of females in each country ages 25-64 participated in the labor force in 2001. Even though in all six countries, males ages 25-64 were more likely than females to participate in the labor force, the percentage of females participating in the labor force has increased while the percentage of males has either stayed the same or slightly decreased since 1995. For example, in the United States, the labor force participation at all levels of educational attainment was 88 percent for males and 71 percent for females in 1995. By 2001, these numbers had changed to 87 percent and 73 percent, respectively.

**Table 37. Labor force participation rates of 25- to 64-year-olds, by educational attainment, sex, and selected industrialized country: 1995 and 2001**

Country	All levels of education				Less than secondary school completion <sup>1</sup>		Upper secondary and vocational postsecondary education <sup>2</sup>		Academic postsecondary education <sup>3</sup>	
	1995		2001		2001		2001		2001	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Canada	86	70	86	72	73	48	88	73	90	83
France	85	68	85	70	76	57	88	76	92	84
Germany	86	65	84	68	77	50	84	70	92	83
Italy	81	45	80	50	74	34	86	67	91	81
United Kingdom	87	70	86	74	67	51	88	77	93	87
United States	88	71	87	73	75	52	86	73	92	81

<sup>1</sup>Equivalent to completing less than a high school diploma.

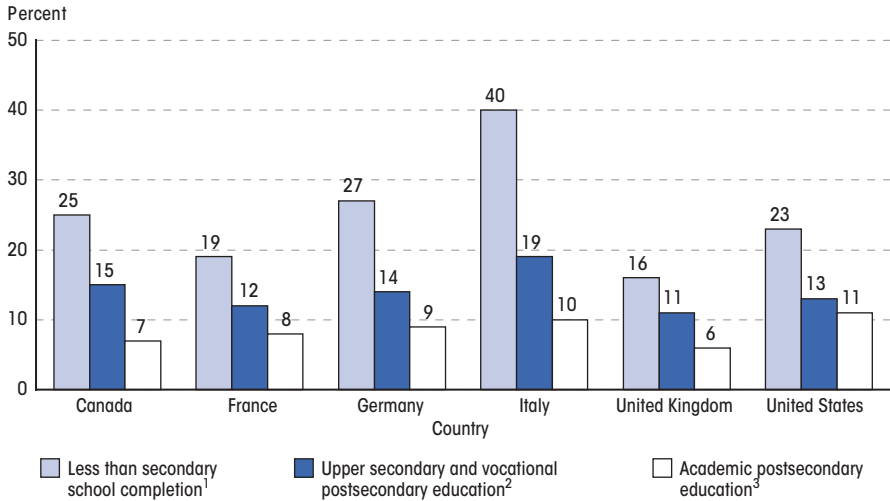
<sup>2</sup>Includes high school completers and those who completed a vocational or technical degree that focuses on occupational skills for direct entry into the labor market.

<sup>3</sup>Equivalent to completing a bachelor's or higher degree.

NOTE: The labor force participation rate is the percentage of persons in an age group who are either employed or looking for work. The classification of the levels of education is based on the International Standard Classification of Education (ISCED).

SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.

**Figure 37. Percentage-point differences in labor force participation rates of 25- to 64-year-old males and females, by highest level of educational attainment and selected industrialized country: 2001**



<sup>1</sup>Equivalent to completing less than a high school diploma.

<sup>2</sup>Includes high school completers and those who completed a vocational or technical degree that focuses on occupational skills for direct entry into the labor market.

<sup>3</sup>Equivalent to completing a bachelor's or higher degree.

NOTE: The labor force participation rate is the percentage of persons in an age group who are either employed or looking for work. The classification of the levels of education is based on the International Standard Classification of Education (ISCED).

SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.



### 38. Education and Earnings

*Education is positively associated with earnings for both males and females in selected large, industrialized countries.*

Increasing global competition and technological innovations have raised the skill requirements in many sectors of industrialized economies (*International Education Indicators, 2000*). The earnings differential, defined as the earnings ratio between a particular education level and secondary education, measures the current financial incentives for an individual to invest in further education. Data presented here show a positive relationship between education and earnings, with the United States showing relationships similar to those in other large, industrialized countries. Earnings for both males and females ages 25-64 with at least a high school education were higher than the earnings of similar aged individuals with less education.

In five of the six countries, the relative earnings of females with less than secondary school completion were less than those of their male peers. At

the vocational postsecondary level, females had higher relative earnings compared to males in every country except Canada.

Among the six countries, females in Canada and the United Kingdom had higher relative earnings than males at the academic postsecondary level; in the other four countries, females at this level had lower relative earnings compared to their male peers. The mean relative earnings of females with an academic postsecondary degree as a percentage of their male counterparts' mean earnings were lower in the United States than all the countries except Italy. At least some of the differences in earnings between the sexes are likely due to differences in college majors and in career choices, differences in the amount of time spent in the labor market, and the relatively higher percentage of females working part time.

**Table 38. Earnings of 25- to 64-year-olds relative to high school completers, and ratio of 30- to 44-year-old females' to males' mean annual earnings, by highest level of educational attainment, sex, and selected industrialized country: Most recent year reported, 1998 to 2001**

Country	Relative earnings of people ages 25–64 with income from employment (high school education = 100 <sup>1</sup> )									Ratio of 30- to 44-year-old females' to males' mean annual earnings	
	Less than secondary school completion <sup>2</sup>			Vocational postsecondary <sup>3</sup>			Academic postsecondary <sup>4</sup>			Less than secondary completion <sup>2</sup>	Academic postsecondary <sup>4</sup>
	Total	Male	Female	Total	Male	Female	Total	Male	Female		
Canada	79	79	70	112	116	116	162	159	171	0.51	0.69
France	84	88	79	125	128	131	169	178	158	0.70	0.68
Germany	75	80	72	115	112	113	163	162	154	0.51	0.59
Italy	58	54	61	—	—	—	127	138	115	0.71	0.56
United Kingdom	67	72	70	128	124	142	174	157	206	0.55	0.66
United States	65	64	62	114	116	117	181	186	171	0.58	0.57

—Not available.

<sup>1</sup>Relative earnings are useful when compared with the benchmark of a high school education=100. For example, in the United States, the relative earnings for men who received an academic postsecondary degree was 186, meaning that they earned 86 percent more than men with a high school education. The relative earnings for men with less than a secondary school completion was 67, meaning that they earned 33 percent less than men with a high school education.

<sup>2</sup>Equivalent to completing less than a high school diploma.

<sup>3</sup>Equivalent to completing a vocational or technical degree that focuses on occupational skills for direct entry into the labor market.

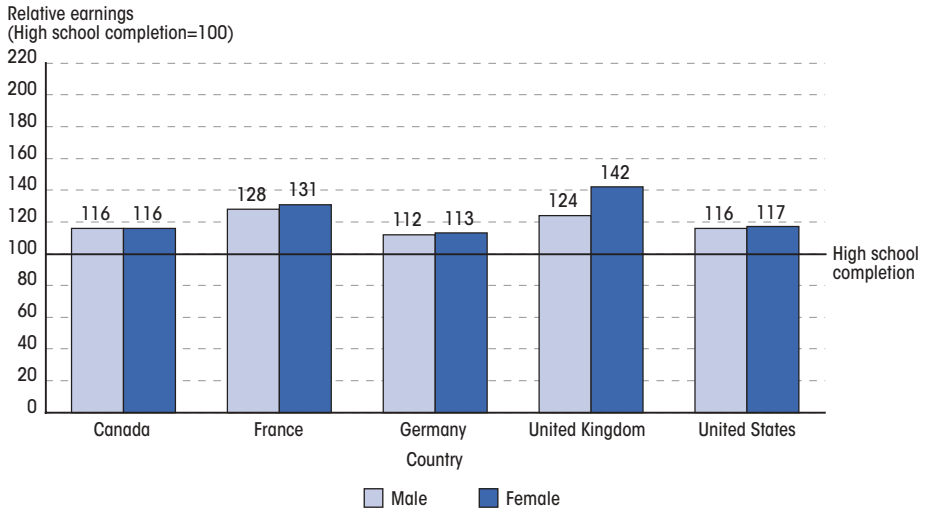
<sup>4</sup>Equivalent to completing a bachelor's degree or higher.

NOTE: Data years vary with country: Canada and France 1999; Germany 2000; Italy 1998; United Kingdom and United States 2001.

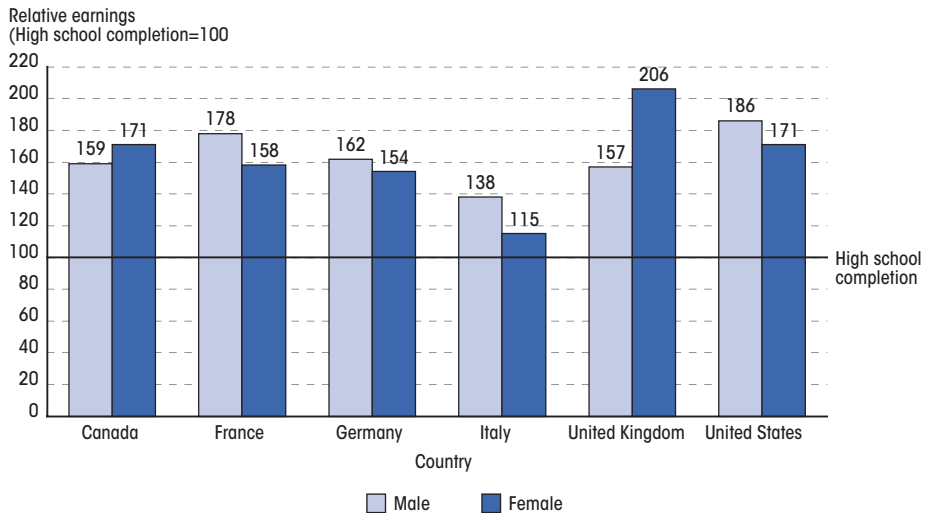
SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.

**Figure 38. Earnings of 25- to 64-year-olds with a vocational postsecondary education or academic postsecondary education relative to high school completers, by sex and selected industrialized country: Most recent year reported, 1998 to 2001**

### Vocational postsecondary education relative to high school completers



### Academic postsecondary education relative to high school completers



NOTE: Data years vary with country: Canada and France 1999; Germany 2000; Italy 1998; United Kingdom and United States 2001. Academic postsecondary education is equivalent to completing a bachelor's or higher degree. Relative earnings are useful when compared with the benchmark of a high school education=100. For example, in the United States, the relative earnings for males who received an academic postsecondary degree was 186, meaning that they earned 86 percent more than males with a high school education.

SOURCE: Organisation for Economic Co-operation and Development (OECD), Center for Educational Research and Innovation, *Education at a Glance, OECD Indicators, 2002*.





## APPENDIX A: SUPPLEMENTAL TABLES

**Table A-1. Percent of 3- to 5-year-olds enrolled in preprimary school and kindergarten, by sex, race/ethnicity, and income: 2001**

Characteristic	Total	3-year-olds	4-year-olds	5-year-olds
<b>Male</b>				
<b>Race/ethnicity</b>				
White	65.4	43.2	65.8	87.2
Black	68.2	36.9	77.6	90.6
Hispanic	53.2	23.5	50.9	85.8
<b>Income</b>				
Lowest 20 percent	54.4	26.5	54.8	85.6
21–40 percent	59.5	32.9	62.3	83.5
41–60 percent	59.0	30.2	59.6	88.5
61–80 percent	70.1	46.9	74.7	87.7
Highest 20 percent	74.5	56.2	77.8	88.4
<b>Female</b>				
<b>Race/ethnicity</b>				
White	66.6	42.9	69.1	88.4
Black	73.1	46.3	80.7	91.3
Hispanic	59.7	36.8	59.3	83.1
<b>Income</b>				
Lowest 20 percent	59.4	28.3	56.1	84.2
21–40 percent	59.5	28.4	57.6	85.0
41–60 percent	57.2	37.5	64.2	84.8
61–80 percent	70.3	44.5	71.3	89.9
Highest 20 percent	78.2	56.5	87.0	88.1

NOTE: This analysis includes 3- to 5-year-olds who were not enrolled in first grade. The income quintiles are defined as: Lowest quintile = \$9,968 and less; 2nd quintile = \$9,969 to \$26,980; 3rd quintile = \$26,981 to \$44,453; 4th quintile = \$44,454 to \$71,865; and top quintile = \$71,866 and above. SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey (CPS), October 2001 supplement, unpublished data.

**Table A-3. Percent of children proficient in identifying sight words in kindergarten, first grade, and third grade, by child's sex and race/ethnicity: Fall 1998, spring 1999, fall 1999, spring 2000, and spring 2002**

Sex and race/ethnicity	Reading, percent recognizing words by sight				
	Kindergarten		First grade		Third grade
	Fall 1998	Spring 1999	Fall 1999	Spring 2000	Spring 2002
Total	3.4	15.6	28.1	76.5	98.8
Male	3.5	14.5	26.2	73.0	98.7
Female	3.3	16.8	30.1	80.2	99.0
<b>Male</b>					
White	4.0	15.9	28.5	78.0	99.2
Black	1.3	10.0	20.3	60.0	97.9
Hispanic	3.5	12.4	20.9	67.3	97.9
<b>Female</b>					
White	4.0	19.6	34.1	84.5	99.5
Black	1.3	10.0	20.6	74.3	98.0
Hispanic	1.8	11.9	23.5	73.0	98.5

NOTE: Data are for children who entered kindergarten for the first time in the fall of 1998 and were assessed in reading for all rounds of data collection. Although most children in the sample were in first grade in 1999–2000 and in third grade in 2001–02, 5 percent were in kindergarten or other grades (e.g., second grade, ungraded classrooms) in 1999–2000 and 11 percent were in second grade or other grades (e.g., fourth grade, ungraded) in the spring of 2002.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), Kindergarten-First Grade Longitudinal Public-Use and Third Grade Restricted-Use data files.

**Table A-14. Percent of high school students engaged in various exercise activities, by sex: Various years, 1995 to 2001**

Type of exercise	1995			1997			1999			2001		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Enrolled in physical education class	59.6	62.2	56.8	48.8	52.0	44.9	56.1	60.7	51.5	51.7	55.6	48.0
Participated in vigorous physical activity <sup>1</sup>	63.7	74.4	52.1	63.8	72.3	53.5	64.7	72.3	57.1	64.6	72.6	57.0
Participated in strengthening exercises <sup>2</sup>	50.3	59.1	41.0	51.4	58.1	43.2	53.6	63.5	43.6	53.4	62.8	44.5

<sup>1</sup>Activities that caused sweating and hard breathing for 20 minutes or more on 3 or more of the 7 days preceding the survey.

<sup>2</sup>For example, push-ups, sit-ups, or weightlifting on 3 or more of the 7 days preceding the survey.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, Youth Risk Behavior Surveillance—United States, 1995, 1997, 1999, and 2001.

**Table A-16. Percent of 12- to 18-year-old students who reported having various perceptions of their school environment during the previous 6 months, by sex: 1995, 1999, and 2001**

Student perception of school environment	1995			1999			2001		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Feared attack at school or on the way to/from school	11.8	10.8	12.8	7.3	6.5	8.2	6.4	6.4	6.4
Avoided places at school	8.7	8.8	8.5	4.6	4.6	4.6	4.7	4.7	4.6
Were the targets of hate-related words at school	—	—	—	13.2	12.3	14.3	12.3	12.8	11.7
Relating to student's sex	—	—	—	—	—	—	2.8	1.2	4.4
Saw hate-related graffiti at school	—	—	—	36.3	33.8	38.9	35.5	34.9	36.1
Street gangs were present at school	—	—	—	—	—	—	20.1	21.4	18.8

—Not available.

NOTE: "At school" includes inside the school building, on school property, or on the way to or from school. Data from 1995 and 1999 on presence of street gangs are not comparable to 2001, and thus are not shown.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Indicators of School Crime and Safety: 2002*; U.S. Department of Justice, Bureau of Justice Statistics, School Crime Supplement to the National Crime Victimization Survey, January-June 1995, 1999, and 2001.

**Table A-20. Birth rates per 1,000 unmarried women 15 to 44 years old, by race and age: 1990 and 2000**

Age group	All races		White, non-Hispanic		Black <sup>1</sup>		Hispanic <sup>2</sup>	
	1990	2000	1990	2000	1990	2000	1990	2000
	Total, 15 to 44 years old <sup>3</sup>	43.8	45.2	24.2	27.9	90.5	72.5	89.6
15 to 19 years old	42.5	39.6	25.0	24.5	106.0	77.0	65.9	74.2

<sup>1</sup>Includes persons of Hispanic origin.

<sup>2</sup>Includes all persons of Hispanic origin of any race.

<sup>3</sup>Rates computed by relating births to unmarried women, regardless of age of mother, to unmarried women ages 15 to 44 years old.

SOURCE: U.S. Department of Health and Human Services, National Center for Health Statistics, *National Vital Statistics Reports*, Vol. 48, no. 16; Vol. 49, no. 1; and Vol. 50, no. 5.

**Table A-21. Average number of Carnegie units in various subjects earned by public high school graduates who graduated in 2000, by sex**

Sex	Total <sup>1</sup>	English	History/social studies			Foreign languages	Arts	Vocational education <sup>2</sup>
			Mathematics	Science	Science			
Total	26.1	4.4	3.8	3.6	3.2	2.0	2.0	4.2
Male	25.9	4.3	3.8	3.5	3.2	1.7	1.8	4.6
Female	26.2	4.5	3.9	3.6	3.3	2.2	2.3	3.8

<sup>1</sup>Included in the totals but not shown separately are graduates whose sex was not reported, and other courses not shown separately.

<sup>2</sup>Includes nonoccupational vocational education, vocational general introduction, agriculture, business, marketing, health, occupational home economics, trade and industry, and technical courses.

NOTE: One Carnegie unit represents one credit for the completion of a 1-year course.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2000 High School Transcript Study (HSTS:00).

**Table A-22. Average score on Advanced Placement (AP) examinations, by subject area and sex: 2002**

Sex	Average score on examination					
	Social studies	English	Foreign language	Calculus	Computer science	Science
Total	2.9	3.0	3.1	3.4	3.2	3.0
Male	3.1	3.0	3.0	3.5	3.2	3.1
Female	2.8	2.9	3.1	3.3	2.9	2.8

NOTE: Social studies includes examinations in psychology, government and politics, human geography, and European, U.S., and world history. English includes English language and composition. Foreign language includes both language and literature examinations in the following languages: French, German, Latin, and Spanish. Calculus includes both AB and BC calculus. Computer science includes A and AB computer science. Science includes biology, chemistry, environmental science, and physics B, physics mechanics, and physics electricity and magnetics.

SOURCE: The College Board, Advanced Placement Program, *National Summary Report*, 2002.

**Table A-26. National Collegiate Athletic Association Division I graduation rates for student-athletes graduating within 6 years of entrance, by race and sex: 1990 to 2001**

Year student entered college	Year student graduated by	Total		White		Black	
		Male	Female	Male	Female	Male	Female
1984	1990	47	62	55	66	33	45
1985	1991	48	61	55	65	34	44
1986	1992	52	68	57	70	41	54
1987	1993	53	67	58	69	43	53
1988	1994	53	69	58	71	42	58
1989	1995	53	67	59	70	43	58
1990	1996	53	68	57	70	43	59
1991	1997	51	67	56	70	41	56
1992	1998	52	68	58	71	40	53
1993	1999	51	68	56	71	41	57
1994	2000	51	69	56	72	42	59
1995	2001	54	69	59	72	43	60

SOURCE: National Collegiate Athletic Association, *2002 NCAA Graduation-Rates Report*.**Table A-36. Median annual earnings of full-time, year-round wage and salary workers 25 to 34 years old, by educational attainment and sex: 2000**

Sex	Educational attainment						
	Grades 9-12, no diploma	High school diploma or GED	Some college, no degree	Associate's degree	Bachelor's degree	Master's degree	First-professional degree
Male	\$21,174	\$29,443	\$32,764	\$37,126	\$45,163	\$54,800	\$49,742
Female	16,877	21,411	24,544	26,810	35,499	40,715	42,812
Females' earnings as a proportion of males'	0.80	0.73	0.75	0.72	0.79	0.74	0.86

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), 2000, unpublished data.







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