



## Education

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The education of children shapes their own personal development and life chances, as well as the economic and social progress of our Nation. This section presents key indicators of how well children are learning and progressing from early childhood through postsecondary school. An indicator on family reading to young children suggests the extent of home support for early learning. Scores on national assessments of mathematics and reading for elementary, middle, and high school students are presented, followed by an indicator on advanced coursetaking. High school completion and college enrollment rates indicate the extent to which students have attained a basic education and are prepared for higher levels of education or the workforce. By contrast, the indicator on youth neither enrolled in school nor working tracks the extent to which youth are at risk of limiting their future prospects at a critical stage of their lives.

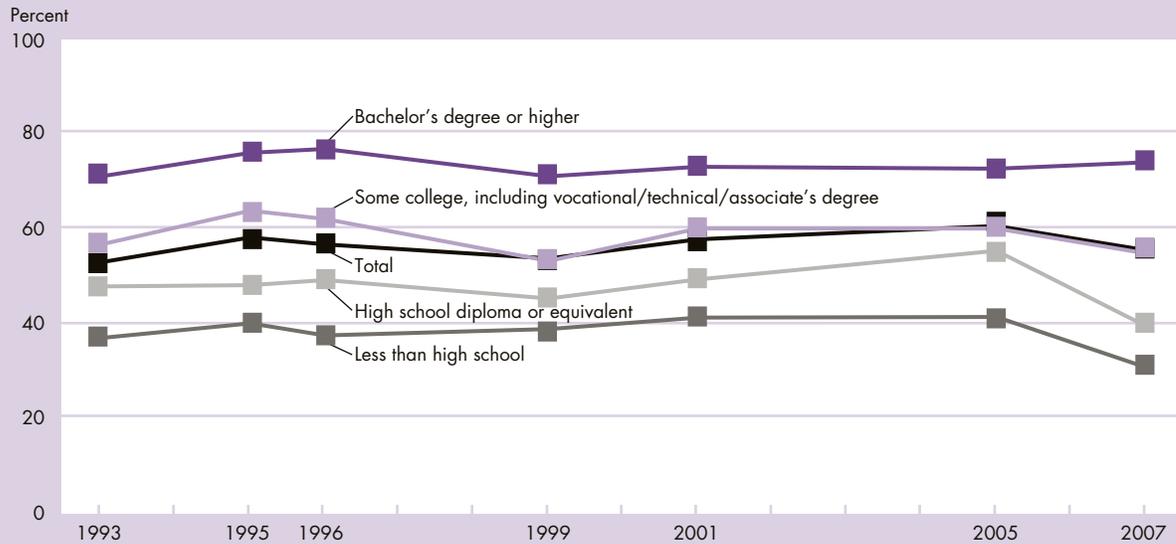


## Family Reading to Young Children

**R**eading to young children promotes language acquisition and is linked with literacy development and, later on, with achievement in reading comprehension and overall success in school.<sup>103</sup> The percentage of young children read to daily by a family member is one indicator of how well young children are being prepared for school.

### Indicator ED1

### Percentage of children ages 3–5 who were read to every day in the last week by a family member by mother’s education, selected years 1993–2007



NOTE: Data are available for 1993, 1995, 1996, 1999, 2001, 2005, and 2007. Estimates are based on children ages 3–5 who have yet to enter kindergarten.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program.

- In 2007, 55 percent of children ages 3–5 who were not yet in kindergarten were read to daily by a family member. This rate is slightly higher than the rate in 1993 (53 percent), but the rate fluctuated in intervening years.
- In 2007, 74 percent of children whose mothers had at least a bachelor's degree were read to every day. In comparison, daily reading occurred for 55 percent of children whose mothers had some college education, 39 percent of children whose mothers had a high school diploma or equivalent but no further education, and 31 percent of children whose mothers had less than a high school diploma.
- Higher percentages of White, non-Hispanic and Asian, non-Hispanic children than either Black, non-Hispanic or Hispanic children were read to every day in 2007. Sixty-seven percent of White, non-Hispanic children, 60 percent of Asian, non-Hispanic children, 35 percent of Black, non-Hispanic children, and 37 percent of Hispanic children were read to every day by a family member.
- The percentage of children in families with incomes 200 percent or more of the poverty level read to daily by a family member (64 percent) was higher than the percentages of children in families with incomes below the poverty level (40 percent) or those in families with incomes 100–199 percent of the poverty level (50 percent) in 2007.
- The percentage of children living with two parents who were read to every day was higher than the percentage of children living with one parent who were read to every day. Fifty-nine percent of children in two-parent households and 43 percent of children living with one parent were read to every day in 2007.
- The percentages of children in the Northeast (59 percent) and Midwest (59 percent) were not statistically different than the percentages of children in the West (54 percent) and South (52 percent) who were read to daily by a family member in 2007.

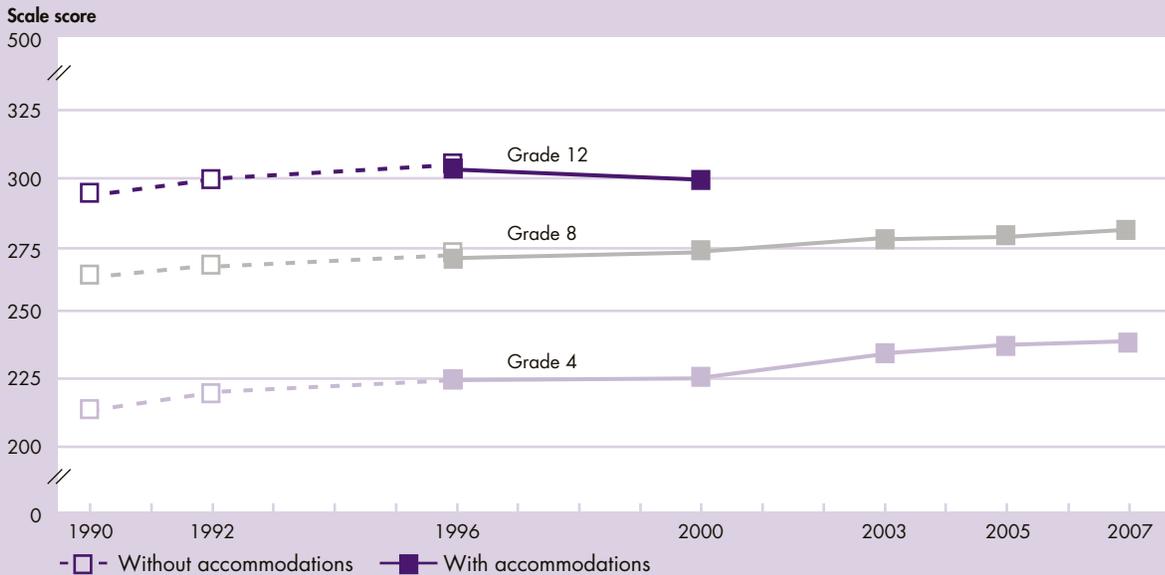
*Bullets contain references to data that can be found in Table ED1 on page 151. Endnotes begin on page 73.*

## Mathematics and Reading Achievement

The extent and content of students' knowledge, as well as their ability to think, learn, and communicate, affect their likelihood of becoming productive adults and active citizens. Mathematics and reading achievement test scores are important measures of students' skills in these subject areas, as well as good indicators of overall achievement in school. To assess progress in mathematics and reading, the National Assessment of Educational Progress (NAEP) measures national trends in the academic performance of students in grades 4, 8, and 12.

### Indicator ED2.A

### Average mathematics scale scores for students in grades 4, 8, and 12, selected years 1990–2007



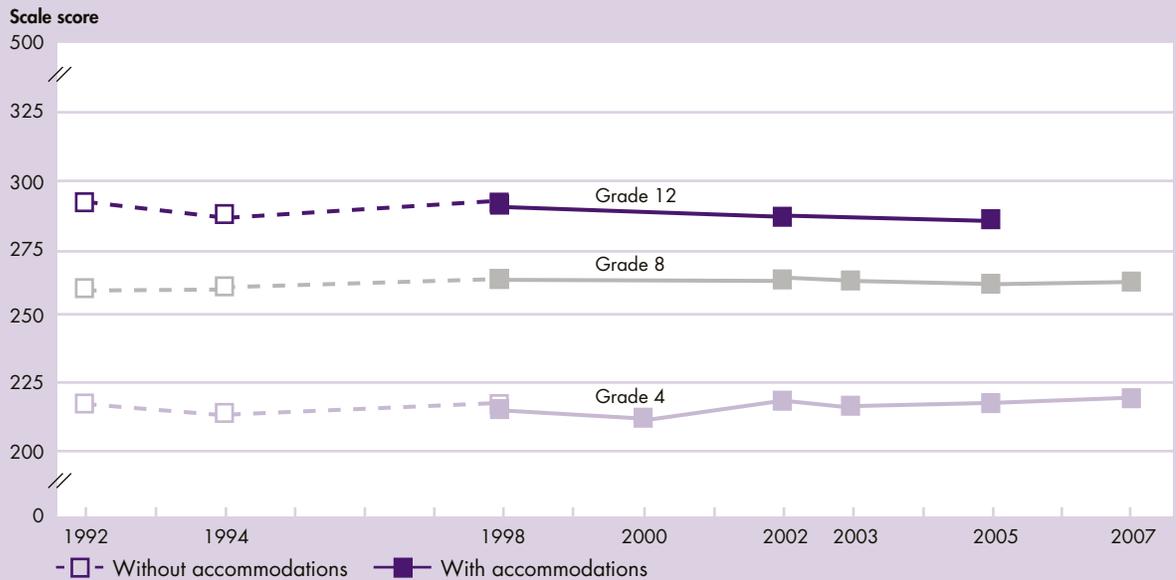
NOTE: Data are available for 1990, 1992, 1996, 2000, 2003, 2005, and 2007, although the 2003 and 2007 assessments only included grades 4 and 8. The 2005 assessment included a 12th-grade component, but the National Assessment Governing Board introduced changes in the 2005 NAEP mathematics framework for grade 12 in both the assessment content and administration procedures. As a result, the 12th-grade assessment results cannot be compared with those of previous assessments. In early years of the assessment, testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted. In 1996, scores are shown for both the assessments with and without accommodations to show comparability across the assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress.

- At grades 4 and 8, average mathematics scores were higher in 2007 than in all previous assessments.
- There was no 12th-grade NAEP mathematics assessment in 2007. Moreover, the 12th-grade NAEP mathematics assessment in 2005 was based on a mathematics framework that was revised to reflect changes in high school mathematics standards and coursework. As a result, the 2005 results cannot be compared with those from previous years.<sup>104</sup>
- In 2007, 39 percent of 4th-graders and 32 percent of 8th-graders were at or above the *Proficient* level in mathematics, indicating solid academic achievement. The percentages of 4th- and 8th-graders at or above *Basic* (indicating partial mastery of prerequisite knowledge and skills), at or above *Proficient*, and at *Advanced* (indicating superior performance) in mathematics in 2007 were higher than in all previous assessments.<sup>105</sup>
- At grades 4 and 8 in 2007, Asian or Pacific Islander and White, non-Hispanic students scored higher on average in mathematics than their Black, non-Hispanic, American Indian or Alaska Native, and Hispanic peers; also, Hispanic and American Indian or Alaska Native students had higher average scores than Black, non-Hispanic students.
- In mathematics, males outperformed females at grades 4 and 8 in 2007 and at grade 12 in 2005.

**Indicator ED2.B**

**Average reading scale scores for students in grades 4, 8, and 12, selected years 1992–2007**



NOTE: Data are available for 1992, 1994, 1998, 2000, 2002, 2003, 2005, and 2007, although the 2000 assessment only included grade 4, and the 2003 and 2007 assessments only included grades 4 and 8. In early years of the assessment, testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted. In 1998, scores are shown for both the assessments with and without accommodations to show comparability across the assessments.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress.

- At grade 4, there was a 4-point increase in the average reading score between 1992 and 2007. At grade 8, reading scores in 2007 had increased 1 point from 2005 and 3 points from 1992.
- There was no 12th-grade NAEP reading assessment in 2007. However, in 2005 the average score at grade 12 was 6 points lower than in 1992.
- In 2007, 33 percent of 4th-graders were at or above the *Proficient* achievement level in reading, indicating solid academic achievement, a higher percentage than in all previous assessments. Thirty-one percent of students in grade 8 were at or above *Proficient*, a percentage not statistically different from the percentage in 1992. Thirty-five percent of students in grade 12 were at or above *Proficient* in 2005, a lower percentage than the percentage in 1992 and 1998 but not statistically different than the percentage in 2002.<sup>105</sup>
- In reading, Asian or Pacific Islander and White, non-Hispanic students scored higher on average in 2007

than their Black, non-Hispanic, American Indian or Alaska Native, and Hispanic peers at grades 4 and 8. The gap between White, non-Hispanic students and their Black, non-Hispanic peers decreased 5 points between 1992 and 2007 at grade 4; however, there was no change in the gap between White, non-Hispanic students and their Hispanic peers between 1992 and 2007 at grade 4. There were no changes in the gaps between White, non-Hispanic students and their Black, non-Hispanic or Hispanic peers from 1992 to 2007 at grade 8 or between 1992 and 2005 at grade 12.

- Females had higher reading scores than males at grades 4 and 8 in 2007 and at grade 12 in 2005.
- In both mathematics and reading, higher parental education levels were associated with higher achievement scores.<sup>106</sup>

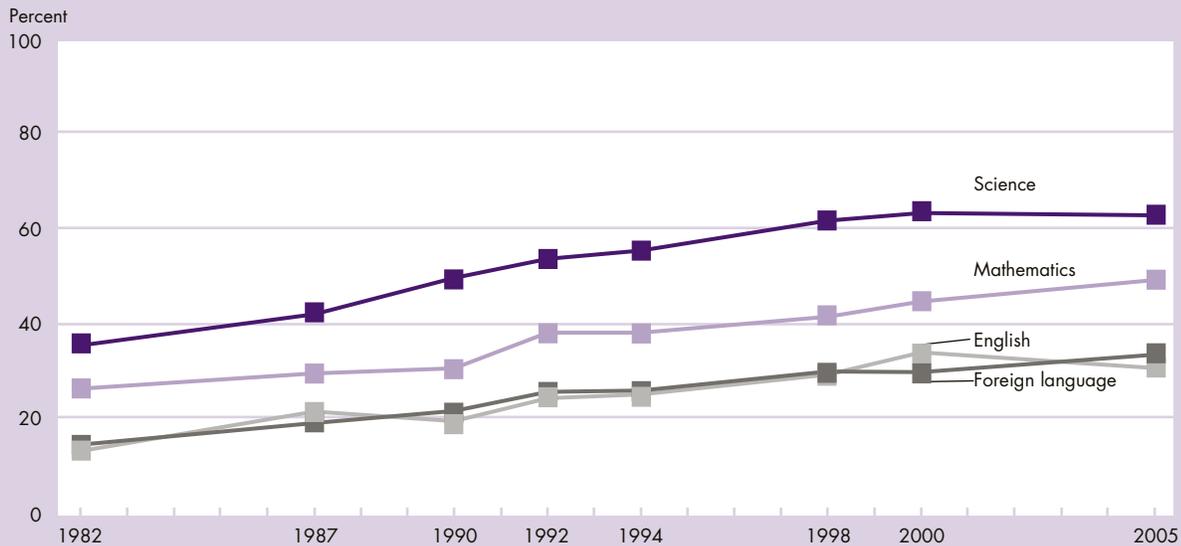
*Bullets contain references to data that can be found in Tables ED2.A and ED2.B on pages 152–155. Endnotes begin on page 73.*

## High School Academic Coursetaking

Since *A Nation at Risk* was published in 1983, school reforms have emphasized increasing the number of academic courses students take in high school. More recent reforms have emphasized increasing the rigor, as well as the amount, of coursetaking. Research suggests a relationship between the level of difficulty of courses students take and their performance on assessments.<sup>107, 108</sup>

### Indicator ED3

### Percentage of high school graduates who had completed advanced coursework in mathematics, science, English, and foreign language, selected years 1982–2005



NOTE: Data for 1982 and 1992 are from a series of longitudinal studies, whereas data for 1987, 1990, 1994, 1998, 2000, and 2005 are from the National Assessment of Educational Progress High School Transcript Studies. Due to differences in survey methodology among the data collections, users should use caution when comparing data across the years. Advanced coursework includes the following: mathematics: courses above Algebra II; science: chemistry, physics, or advanced biology; English: some courses at the honors level; and foreign language: a year 3, year 4, or advanced placement course.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Studies: High School and Beyond Study, National Education Longitudinal Study of 1988, and National Assessment of Educational Progress Transcript Study.

- Forty-nine percent of students who graduated from high school in 2005 had taken at least one advanced mathematics course (defined as a course above Algebra II), which was higher than the percentage in 1982 (26 percent). The percentage of graduates in 2005 who had taken a nonacademic or low-level academic course as their most advanced mathematics course was 4 percent, compared with 24 percent of graduates in 1982.
- In science, 63 percent of all high school graduates in 2005 had taken a chemistry, physics, or advanced biology course, compared to 35 percent of the graduates in 1982 who had taken this level of science course. The percentage of graduates whose most advanced science course was classified as a low-level academic course dropped from 27 percent in 1982 to 7 percent in 2005.
- In English, 31 percent of all high school graduates in 2005 had taken honors-level courses, an increase from 13 percent of graduates in 1982. There was no measurable difference between the percentages of graduates in 1982 and 2005 who had taken low-level academic courses in English (10 and 12 percent, respectively).
- In foreign languages, 33 percent of high school graduates had taken a year 3, year 4, or advanced placement course in 2005; this was double the percentage in 1982 (15 percent). Sixteen percent of high school graduates in 2005 had not taken any foreign language course, compared with 46 percent of graduates in 1982.
- While the level of high school academic coursetaking rose between 1982 and 2005, the reading, mathematics, or science scores of 12th-graders did not improve on the National Assessment of Educational Progress.<sup>109</sup>

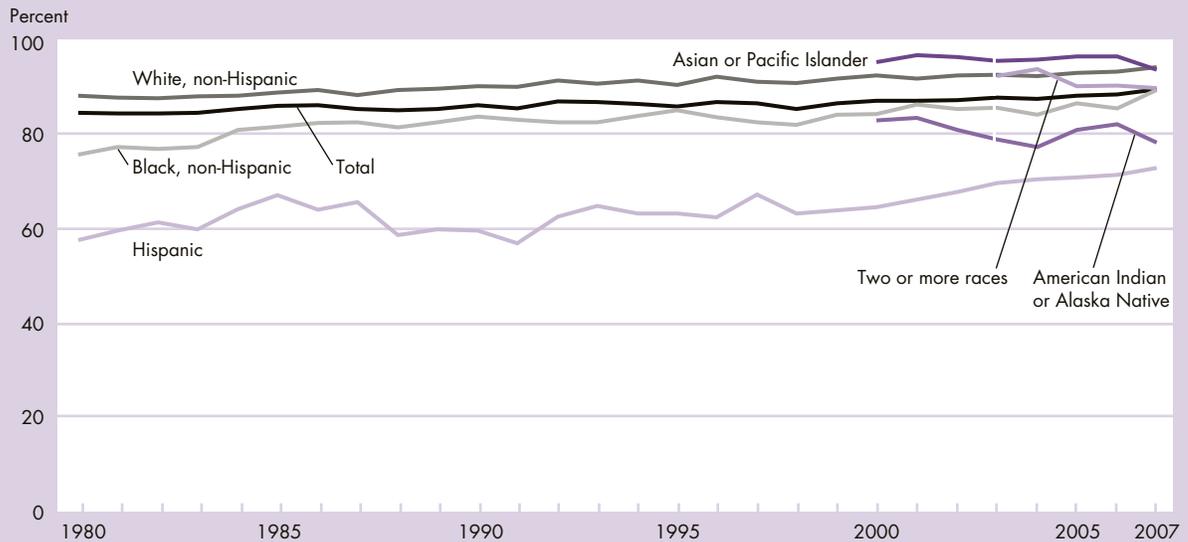
*Bullets contain references to data that can be found in Tables ED3.A–ED3.D on pages 156–159. Endnotes begin on page 73.*

## High School Completion

**A** high school diploma or its equivalent is an indicator that a person has acquired the basic reading, writing, and mathematics skills a person needs to function in modern society. The percentage of young adults ages 18–24 with a high school diploma or an equivalent credential is a measure of the extent to which young adults have completed a basic prerequisite for many entry-level jobs and for higher education.

### Indicator ED4

### Percentage of young adults ages 18–24 who have completed high school by race and Hispanic origin, 1980–2007



NOTE: Percentages are based only on those not currently enrolled in high school or below. Prior to 1992, this indicator was measured as completing 4 or more years of high school rather than the actual attainment of a high school diploma or equivalent. For data before 2003, the 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaskan Native, or Asian or Pacific Islander. The revised 1997 OMB standards were used for data for 2003 and later years. Persons could select one or more of five racial groups: White, Black or African American, American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander. Those reporting more than one race were classified as “Two or more races.” For continuity purposes, respondents who reported being Asian or Native Hawaiian or Other Pacific Islander were combined. Beginning in 2003, those in each racial category represent those reporting only one race. Data from 2003 onward are not directly comparable with data from earlier years. Data on race and Hispanic origin are collected separately. Persons of Hispanic origin may be of any race.

SOURCE: U.S. Census Bureau, Current Population Survey, School Enrollment Supplement.

- In 2007, 89 percent of young adults ages 18–24 had completed high school with a diploma or an alternative credential such as a General Education Development (GED) certificate. The high school completion rate has increased slightly since 1980, when it was 84 percent.
- The rate at which Black, non-Hispanic young adults completed high school increased from 75 percent to 89 percent between 1980 and 2007. Among White, non-Hispanics, the high school completion rate increased from 88 percent in 1980 to 93 percent in 2007.
- Hispanic young adults have had a consistently lower high school completion rate than White, non-Hispanic and Black, non-Hispanic young adults. Nonetheless, the high school completion rate for Hispanic young adults has increased from 57 percent in 1980 to 72 percent in 2007.
- In 2007, higher percentages of White, non-Hispanic and Asian or Pacific Islander young adults (93 percent each) had completed high school, compared with Black, non-Hispanic young adults and young adults of two or more races (89 percent each), American Indian or Alaska Native young adults (78 percent), and Hispanic young adults (72 percent).

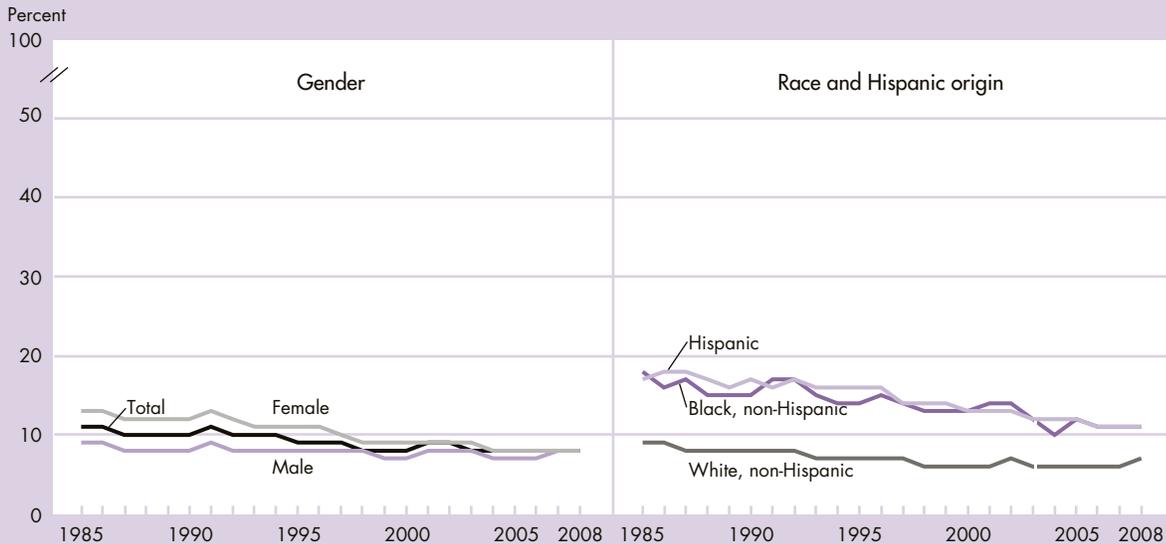
*Bullets contain references to data that can be found in Table ED4 on page 160.*

## Youth Neither Enrolled in School nor Working

**Y**outh ages 16–19 who are neither in school nor working are detached from both of these core activities that usually occupy teenagers during their transition from adolescence to adulthood. Such detachment, particularly if it lasts for several years, puts youth at increased risk of having lower earnings and a less stable employment history than their peers who stayed in school, secured jobs, or both.<sup>110</sup> The percentage of youth who are not enrolled in school and not working is one measure of the proportion of young people who are at risk of limiting their future prospects.

### Indicator ED5

### Percentage of youth ages 16–19 who are neither enrolled in school nor working by gender and race and Hispanic origin, 1985–2008



NOTE: The information relates to the labor force and enrollment status of persons 16–19 years old in the civilian noninstitutionalized population during an “average” week of the school year. School refers to both high school and college. For data before 2003, the 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaskan Native, or Asian or Pacific Islander. The revised 1997 OMB standards were used for data for 2003 and later years. Persons could select one or more of five racial groups: White, Black or African American, American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander. Included in the total but not shown separately are American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and “Two or more races.” Beginning in 2003, those in each racial category represent those reporting only one race. Data from 2003 onward are not directly comparable with data from earlier years. Data on race and Hispanic origin are collected separately. Persons of Hispanic origin may be of any race.

SOURCE: U.S. Bureau of Labor Statistics, Current Population Survey.

- In an average week during the 2008 school year, 8 percent of youth ages 16–19 were neither enrolled in school nor working. The proportion of youth neither enrolled in school nor working has been on a downward trend, and most of the decline has occurred among females. In 1991, 13 percent of young females were neither in school nor working; by 2008, this proportion was 8 percent.
- Black, non-Hispanic youth and Hispanic youth are more likely to be neither enrolled nor working than White, non-Hispanic youth. In 2008, 11 percent of Hispanic youth and 11 percent of Black, non-Hispanic youth were neither in school nor working, compared with 7 percent of White, non-Hispanic youth.
- Older youth, ages 18–19, are more than three times as likely to be detached from school and work activities as youth ages 16–17. In 2008, 14 percent of youth ages 18–19 were neither enrolled in school nor working, compared with 4 percent of youth ages 16–17.
- The percentage of youth who were enrolled in school and not employed was 61 percent in 2008. This proportion has been trending up since 2000, when it was 48 percent.<sup>111</sup>
- The percentage of youth who were both enrolled in school and employed was 22 percent in 2008, down from 31 percent in 1998.

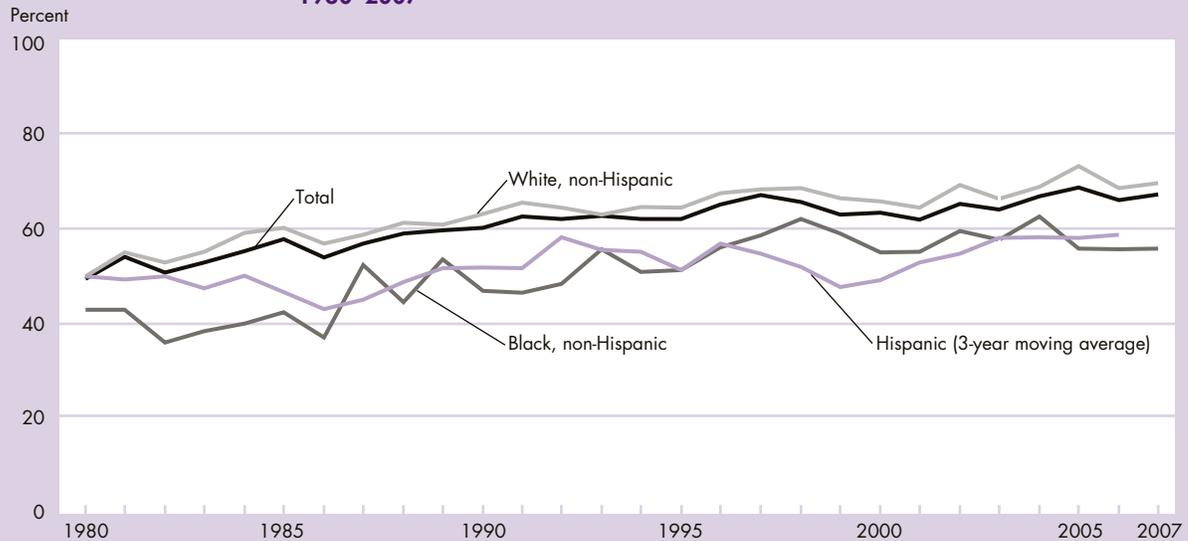
*Bullets contain references to data that can be found in Tables ED5.A and ED5.B on pages 161–162. Endnotes begin on page 73.*

## College Enrollment

A college education generally enhances a person's employment prospects and increases his or her earning potential.<sup>112</sup> The percentage of high school completers who enroll in college in the fall immediately after high school is one measure of the accessibility and perceived value of a college education by high school completers.<sup>113</sup>

### Indicator ED6

### Percentage of high school completers who were enrolled in college the October immediately after completing high school by race and Hispanic origin, 1980–2007



NOTE: Enrollment in college as of October of each year for individuals ages 16 to 24 who completed high school during the preceding 12 months. High school completion includes GED recipients. A 3-year moving average is the average of the estimates for the year prior to the reported year, the reported year, and the following year. Thus a moving average cannot be calculated for the most recent year. For data before 2003, the 1977 OMB Standards for Data on Race and Ethnicity were used to classify persons into one of the following four racial groups: White, Black, American Indian or Alaskan Native, or Asian or Pacific Islander. The revised 1997 OMB standards were used for data for 2003 and later years. Persons could select one or more of five racial groups: White, Black or African American, American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander. Included in the total but not shown separately are American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and "Two or more races." Beginning in 2003, those in each racial category represent those reporting only one race. Data from 2003 onward are not directly comparable with data from earlier years. Data on race and Hispanic origin are collected separately. Persons of Hispanic origin may be of any race.

SOURCE: U.S. Census Bureau, Current Population Survey, School Enrollment Supplement.

- In 2007, 67 percent of high school completers enrolled immediately in a 2-year or 4-year college.
- Between 1980 and 2007, the rate of immediate college enrollment has trended upward from 49 percent to 67 percent; however, the rate has fluctuated from year to year.
- In 1980, 50 percent of White, non-Hispanic high school completers immediately enrolled in college; this rate increased to 69 percent by 1998 and decreased to 64 percent by 2001. Although this rate fluctuated between 2001 and 2007, the immediate college enrollment rate was higher in 2007 (70 percent) than in 2001.
- In 1980, the immediate enrollment rate for Black, non-Hispanics was 43 percent; this rate increased to 56 percent in 2007.
- For Hispanics, the immediate college enrollment rate has fluctuated greatly since 1980, very likely due to small sample sizes. For this reason, a 3-year moving average is used to measure the trend. Even so, due to large standard errors, there is no measurable difference between the moving average in 1980 (50 percent) and 2006 (59 percent).
- From 1980 to 2007, the immediate enrollment rate for male high school completers increased from 47 percent to 66 percent, while for female high school completers it increased from 52 percent to 68 percent.
- Between 1980 and 1995, there were no statistically significant differences between the immediate enrollment rates for males and females. Between 1996 and 2004, however, the female rate was significantly greater than the male rate every year except 1999 and 2001. Since 2005, there again were no statistically significant differences between the rates for males and females.

*Bullets contain references to data that can be found in Table ED6 on page 163. Endnotes begin on page 73.*

## Indicator Needed

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### Education

Regular, periodic data collections are needed to provide information on young children's cognitive, social, and emotional development.

- *Early childhood development.* Although this report offers indicators of young children's exposure to reading and early childhood education, a regular source of data is needed to measure specific cognitive, emotional, and social skills of preschoolers over time. One assessment of kindergartners' skills and knowledge was presented as a special feature in *America's Children, 2000*. The Forum's Research and Innovation committee is working to strengthen our understanding of how to best conceptualize, define, and measure aspects of early childhood socio-emotional development.