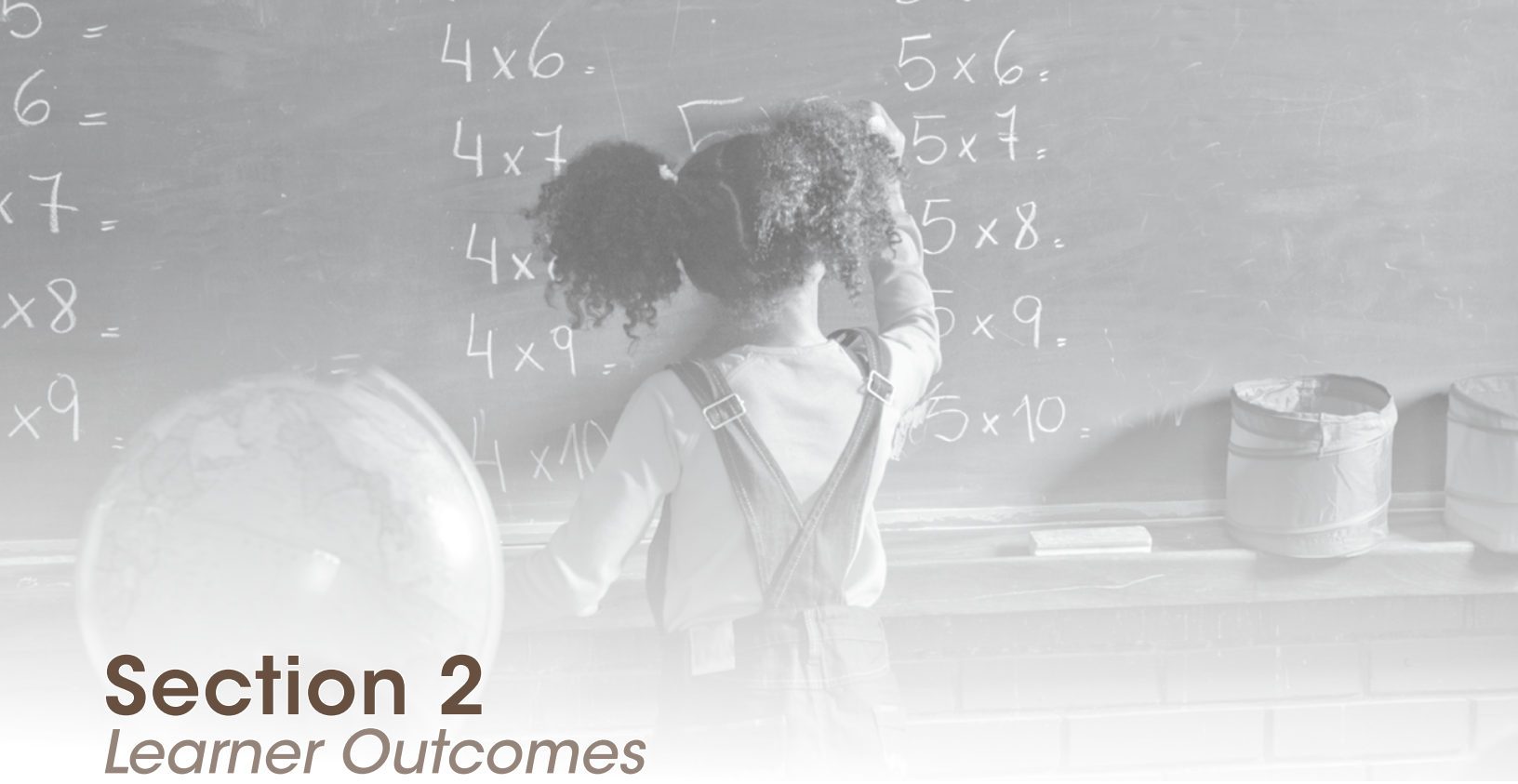
Section 2
Learner Outcomes



Section 2
Learner Outcomes

Contents

Introduction

The indicators in this section of *The Condition of Education* examine student achievement and other outcomes of education among students in elementary and secondary education and among adults in the broader society. The indicators on student achievement illustrate how students are performing on assessments in reading, mathematics, science, and other academic subject areas. They highlight trends over time in student achievement as well as gaps in achievement between groups. The indicators in this section are organized into five subsections. Indicators prepared for this year's volume appear on the following pages, and all indicators in this section, including indicators from previous years, appear on the Web (see the "List of Indicators on *The Condition of Education* Website" on page xxix for a full listing of indicators).

The indicators in the first subsection (found on the website) trace the gains in achievement and the specific reading and mathematics skills of children through the early years of elementary education. Children enter school with varying levels of knowledge and skill. Measures of these early childhood competencies represent important indicators of students' future prospects both inside and outside of the classroom. These indicators highlight changes in student achievement for a cohort of kindergarten children as they progressed through the early years of schooling.

The indicators in the second subsection report trends in academic performance, either by age or by grade, among elementary and secondary students. As students progress through school, it is important to know the extent to which they are acquiring necessary skills and gaining proficiency in challenging subject matter. In this subsection, academic outcomes are measured in three ways: (1) as the change in students' average performance over time, (2) as the change in the percentage of students achieving specified levels of achievement, and (3) through international comparisons of national averages. Indicators in this volume show the reading and mathematics achievement of students in grades 4 and 8 and the achievement in the arts of students in grade 8. Five other indicators that appear on the Web highlight achievement in writing, economics, science, U.S. history, and geography. Also, two indicators found in this volume examine the mathematics and science skills of students at the international level. Other indicators found on the website provide international comparisons in reading literacy. Together, indicators in the first two subsections help to create a composite picture of academic achievement for U.S. students.

In addition to academic achievement at the elementary and secondary levels (highlighted in the second section), the third subsection highlights adult literacy measures, while the focus of the fourth subsection is social outcomes of education (the third and fourth subsections are found on the website). Knowledge of these outcomes—which are measured here by levels of adult literacy, adult reading habits, and the health status of individuals—helps contribute to an educated, capable, and engaged citizenry.

The fifth subsection looks specifically at the economic outcomes of education. Economic outcomes include the earnings of individuals with varying levels of educational attainment, examined in an indicator in this volume, and the likelihood of being employed, examined in an indicator on the website.

The indicators on learner outcomes from previous editions of *The Condition of Education,* which are not included in this volume, are available at http://nces.ed.gov/programs/coe.

Reading Performance

At grade 4, the average reading score in 2009 was not measurably different from the average score in 2007. At grade 8, the average reading score increased by 1 point from 2007 to 2009.

In 2009, the average National Assessment for Educational Progress (NAEP) reading scale score for 4th-graders was unchanged from the score in 2007 but higher than the scores on all of the earlier assessments given between 1992 and 2005 (see table A-9-1). From 1992 to 2009, 4th-graders' average NAEP reading scale scores increased 4 points, from 217 to 221. The percentages of 4th-graders performing at or above the *Basic,* at or above the *Proficient,* and at the *Advanced* achievement levels showed no measurable change from 2007 to 2009. In 2009, about 67 percent of 4th-graders performed at or above *Basic,* 33 percent performed at or above *Proficient,* and 8 percent performed at *Advanced.*

From 2007 to 2009, there were no measurable changes in average reading scores for 4th-grade males and females or for students from any of the five racial/ethnic groups (see table A-9-2). From 1992 to 2009, male 4th-graders' average reading scores increased from 213 to 218 and female 4th-graders' scores increased from 221 to 224. At grade 4, the average reading scores in 2009 for White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students were not measurably different from their scores in 2007. The 2009 reading scores for White, Black, and Hispanic students did, however, remain higher than scores from assessment years prior to 2007.

The 2009 average NAEP reading scale score for 8th-graders was 1 point higher than the 2007 score and 4 points higher than the 1992 score, but the 2009 score was not always measurably different from the scores on the assessments given between 1994 and 2005 (see table A-9-1). The percentage of 8th-graders performing at or above *Basic* and the percentage performing at or above *Proficient* each increased 1 percentage point from 2007 to 2009; these percentages were higher in 2009 than in 1992. In 2009, the percentage of 8th-graders performing at the *Advanced* achievement level (3 percent) was not measurably different from the percentage in 2007 or 1992.

At grade 8, male students' average reading score in 2009 was higher than scores in 2007 and 1992, while female students' average score in 2009 was not measurably different from scores in either of those years (see table A-9-2). In 2009, the average score for female 8th-graders was 269, compared with the average score of 259 for their male counterparts. At grade 8, average reading scores were higher in 2009 than in 2007 for all racial/ethnic groups.

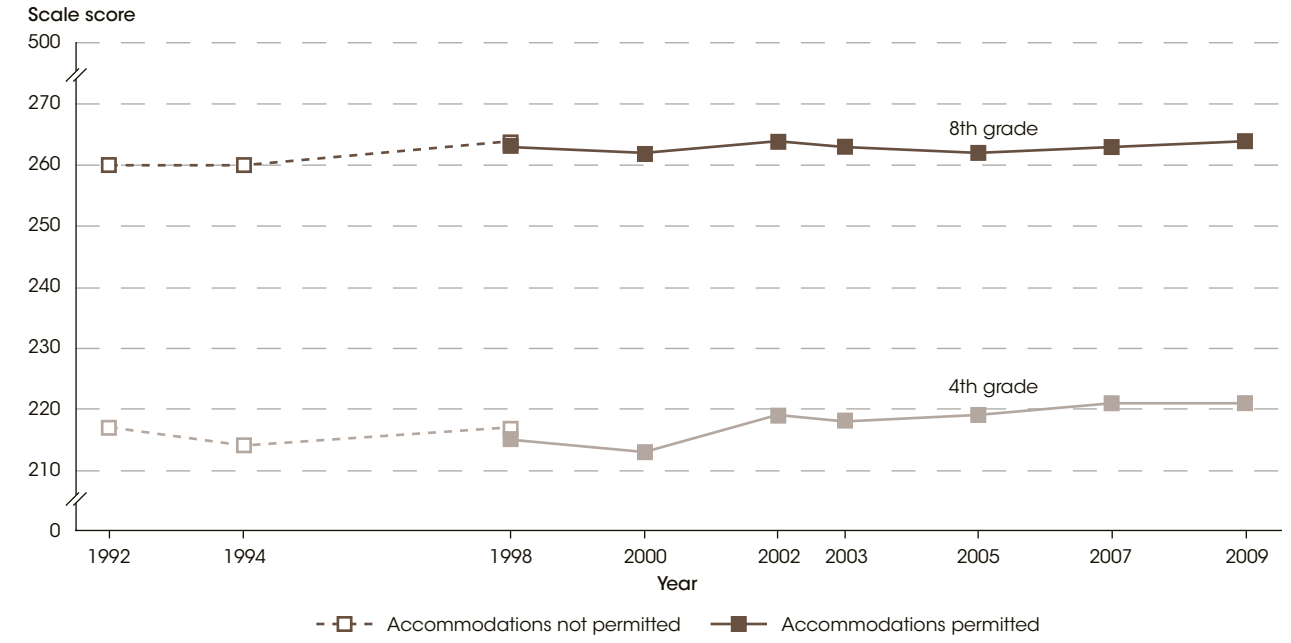
NAEP results also permit state-level comparisons of the reading abilities of 4th- and 8th-graders in public schools. While there was no measurable change from 2007 to 2009 in the overall average score for 4th-grade public school students in the nation, scores did increase in two states (Kentucky and Rhode Island) and the District of Columbia and decrease in four states (Alaska, Iowa, New Mexico, and Wyoming) (see table A-9-3). At grade 8, although the average score for public school students in the nation was 1 point higher in 2009 than in 2007, score increases were seen in less than one-quarter of the states. Scores were higher in 2009 than in 2007 for nine states (Alabama, Connecticut, Florida, Hawaii, Kentucky, Missouri, New Mexico, Pennsylvania, and Utah), and in the remaining states and the District of Columbia scores showed no measurable change.

For more information: *Tables A-9-1 through A-9-3; Indicator 10*
Glossary: *Achievement levels*

Technical Notes

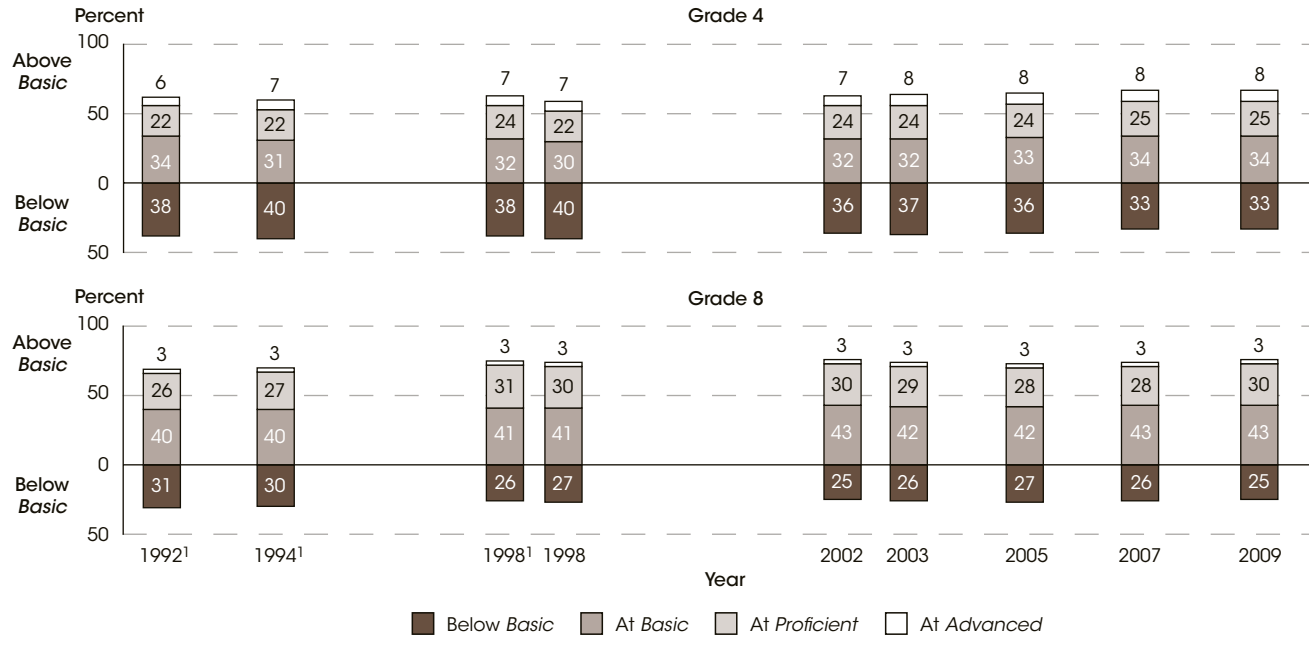
NAEP reading scores range from 0 to 500. The achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998. For more information on NAEP, see *supplemental note 4.* For more information on race/ethnicity, see *supplemental note 1.*

Figure 9-1. Average reading scale scores of 4th- and 8th-grade students: Selected years, 1992–2009



NOTE: National Assessment of Educational Progress (NAEP) reading scores range from 0 to 500. Student assessments are not designed to permit comparisons across subjects or grades. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1992–2009 Reading Assessments, NAEP Data Explorer.

Figure 9-2. Percentage distribution of 4th- and 8th-grade students across NAEP reading achievement levels: Selected years, 1992–2009



[1] Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998.
NOTE: Achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance. Detail may not sum to totals because of rounding. For more information on the National Assessment of Educational Progress (NAEP), see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1992–2009 Reading Assessments, NAEP Data Explorer.

Reading Achievement Gaps

In 2009, the 8th-grade reading achievement gap between White and Black students was 26 points and the gap between White and Hispanic students was 24 points; neither gap was measurably different from the corresponding gaps in 2007 or 1992.

In 2009, average National Assessment for Educational Progress (NAEP) reading scale scores for White, Black, and Hispanic 4th-graders were not measurably different from the scores in 2007, but the 2009 scores for each of these groups were higher than those from the assessment years prior to 2007 (see table A-10-1). White 4th-graders, however, scored higher on average than Black and Hispanic 4th-graders on all assessments given since 1992, a disparity referred to as the achievement gap. The achievement gap is the difference between the average scores of two student subgroups on the standardized NAEP reading assessment. The achievement gap between White and Black students in 2009 (26 points) was not measurably different from the gap in 2007, but it was smaller than all other gaps from earlier assessment years. The 25-point achievement gap between White and Hispanic 4th-graders in 2009 was not measurably different from the gap in 2007 or 1992. In 2009, about 42 percent of White, 16 percent of Black, and 17 percent of Hispanic 4th-graders performed at or above the *Proficient* achievement level (see table A-10-3). Ten percent of White students, 2 percent of Black students, and 3 percent of Hispanic students performed at the *Advanced* level on the NAEP reading assessment.

The 2009 average reading scores for White, Black, and Hispanic 8th-graders were higher than their scores in 2007, but the 2009 scores were not always measurably different from the scores on the previous assessments given between 1992 and 2005 (see table A-10-2). As with 4th-graders, White 8th-graders scored higher on average than Black and Hispanic students on all NAEP reading assessments given since the first one in 1992. Because all three racial/ethnic groups have made progress, neither the 2009 reading achievement gap between White and Black 8th-graders nor the gap between White and Hispanic 8th-graders was measurably different from the corresponding gaps in 2007 and 1992. For 8th-graders in 2009, the White-Black reading achievement gap was 26 points and the White-Hispanic achievement gap was 24 points. In 2009, about 41 percent of White, 14 percent of Black, and 17 percent of Hispanic 8th-graders performed at or above Proficient (see table A-10-3). Four percent of Whites and 1 percent or less of both Hispanic and Black students performed at the *Advanced* level on the NAEP reading assessment.

In addition to the reading achievement gap observed between White, Black, and Hispanic students, in 2009, Asian/Pacific Islander students also scored higher on average than Black, Hispanic, and American Indian/Alaska Native students at grade 4 and grade 8. Further, Asian/Pacific Islander 4th-graders scored higher on average than White students (see tables A-10-1 and A-10-2). In 2009, the gap between Asian/Pacific Islander and White 4th-graders was 5 points.

In 2009, average reading scores for male and female 4th-graders were not measurably different from their scores in 2007, but from 1992 to 2007 scores for both males and females increased (see table A-10-1). In 2009, female students scored 7 points higher, on average, than male students. This gap was not measurably different from the gap in 2007 or 1992. About 36 percent of females scored at or above *Proficient* in 2009 compared with 30 percent of males. About 9 percent of females and 6 percent of males scored at the *Advanced* level.

At grade 8, the average reading score for male students was higher in 2009 than in both 2007 and 1992, while the average score in 2009 for female students was not measurably different from their scores in either year. The 9-point reading gap between males and females in 2009 was not measurably different from the gap in 2007, but it was smaller than the 13-point gap in 1992. In 2009, about 37 percent of female 8th-graders scored at or above *Proficient,* compared with 28 percent of males. About 4 percent of females and 2 percent of males scored at the *Advanced* level.

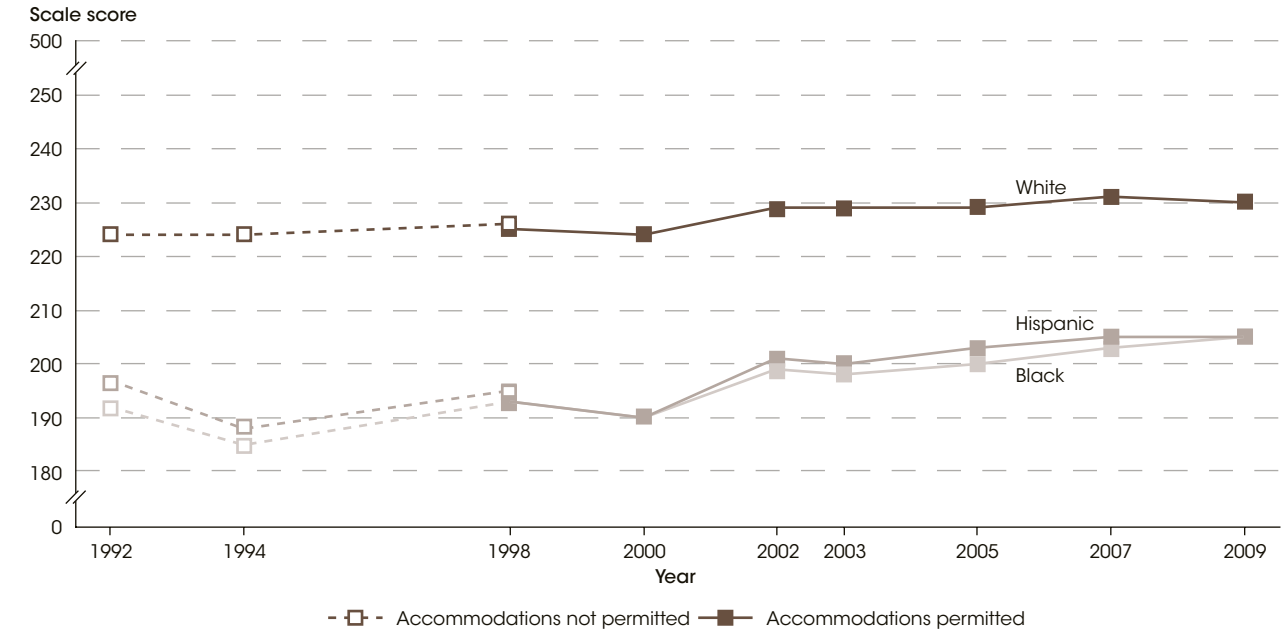
For more information: *Tables A-10-1 through A-10-3; Indicator 9*
Glossary: *Achievement levels*

Technical Notes

NAEP reading scores range from 0 to 500. Score gaps are calculated based on differences between unrounded scores. The achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance.

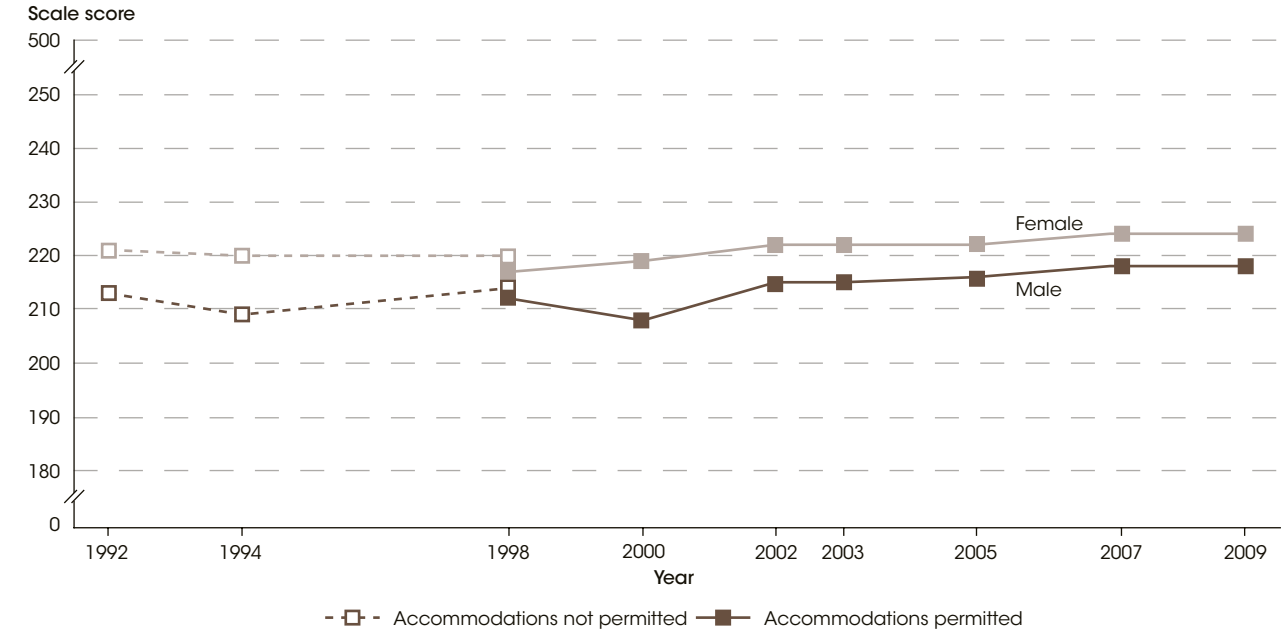
Testing accommodations for children with disabilities and limited-English-proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998. For more information on race/ethnicity, see *supplemental note 1.* For more information on NAEP, see *supplemental note 4.*

Figure 10-1. Average 4th-grade reading scale scores, by race/ethnicity: Selected years, 1992–2009



NOTE: National Assessment of Educational Progress (NAEP) reading scores range from 0 to 500. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1*. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1992–2009 Reading Assessments, NAEP Data Explorer.

Figure 10-2. Average 4th-grade reading scale scores, by sex: Selected years, 1992–2009



NOTE: National Assessment of Educational Progress (NAEP) reading scores range from 0 to 500. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1992 and 1994; students were tested with and without accommodations in 1998. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1992–2009 Reading Assessments, NAEP Data Explorer.

Mathematics Performance

Students' average mathematics scores increased each assessment year since the first assessment in 1990 through 2007; this trend continued from 2007 to 2009 at grade 8 but not at grade 4.

At grade 4, the average score on the 2009 National Assessment of Educational Progress (NAEP) Mathematics Assessment was unchanged from the score in 2007, but was higher than the scores on all of the previous assessments since 1990 (see table A-11-1). From 1990 to 2009, 4th-graders' average NAEP mathematics scale scores increased 27 points, from 213 to 240. The percentages of 4th-grade students performing at or above the *Basic,* at or above the *Proficient,* and at the *Advanced* achievement levels showed no measurable change from 2007 to 2009. In 2009, about 82 percent of 4th-graders performed at or above *Basic,* 39 percent performed at or above *Proficient,* and 6 percent performed at *Advanced.*

From 2007 to 2009, there were no measurable changes in average mathematics scores for 4th-grade males and females or for students of any of the five racial/ethnic groups (see table A-11-2). From 1990 to 2009, male 4th-graders' average scores increased from 214 to 241 and females' increased from 213 to 239. At grade 4, the average mathematics scores in 2009 for White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students were unchanged from their scores in 2007. Scores for White, Black, Hispanic, and Asian/Pacific Islander students in 2009 did remain higher than those from the assessment years prior to 2007.

Eighth-graders scored higher in mathematics in 2009 than they had in any previous assessment year (see table A-11-1). From 1990 to 2009, 8th-graders' average NAEP mathematics scale scores increased 20 points, from 263 to 283. The percentages of 8th-grade students performing at or above the *Basic,* at or above the *Proficient,* and at the *Advanced* achievement levels all showed increases of 1 to 2 percentage points from 2007 to 2009. In 2009, about 73 percent of 8th-graders performed at or above *Basic,* 34 percent performed at or above *Proficient,* and 8 percent performed at *Advanced.*

From 2007 to 2009, increases in mathematics scores were seen for male and female 8th-graders and for 8th-graders of most racial/ethnic groups. Both male and female 8th-graders scored higher in 2009 than they had in any of the previous assessment years (see table A-11-2). At grade 8, average mathematics scores in 2009 for White, Black, and Hispanic students were higher than scores on any of the previous assessments. The average score for 8th-grade Asian/Pacific Islander students in 2009 was higher than their scores in both 2007 and 1990.

NAEP results also permit state-level comparisons of the mathematics abilities of 4th- and 8th-graders in public schools. From 2007 to 2009 there was no measurable change nationwide in the overall average score for 4th-grade public school students; however, scores did increase in seven states (Colorado, Kentucky, Maryland, Nevada, New Hampshire, Rhode Island, and Vermont) and the District of Columbia. Scores decreased in four states (Delaware, Indiana, West Virginia, and Wyoming) (see table A-11-3). At grade 8, while the overall average score for public school students in the nation was higher in 2009 than in 2007, increases were seen in less than one-third of the states. Scores were higher in 2009 than in 2007 for 14 states (Connecticut, Georgia, Hawaii, Idaho, Missouri, Montana, Nevada, New Hampshire, New Jersey, Rhode Island, South Dakota, Utah, Vermont, and Washington) and the District of Columbia. No states showed a decline.

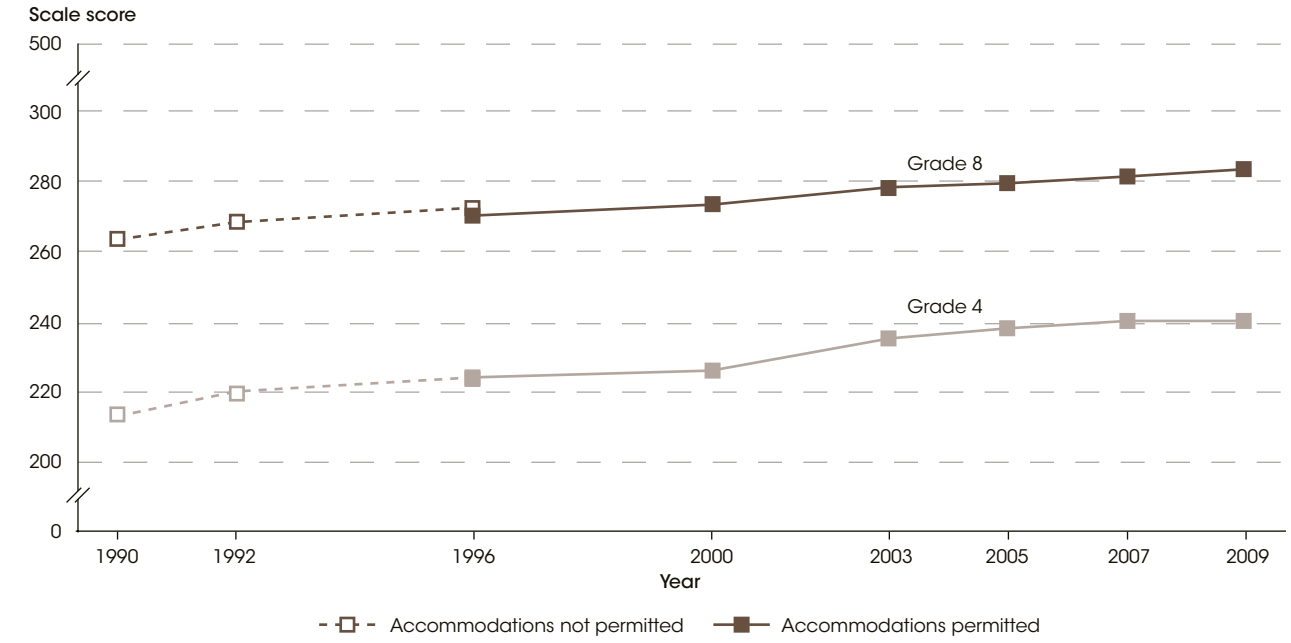
For more information: *Tables A-11-1 through A-11-3; Indicator 12*

Glossary: *Achievement levels*

Technical Notes

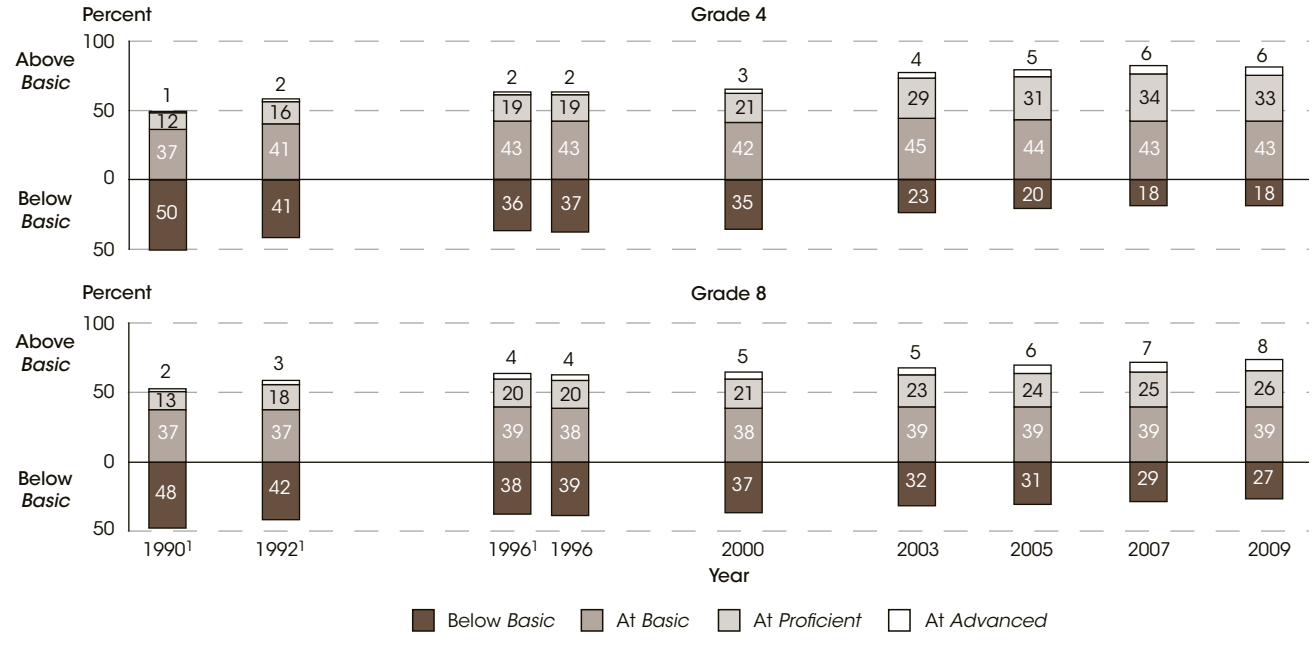
NAEP mathematics scores range from 0 to 500. The achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996. For more information on race/ethnicity, see *supplemental note 1.* For more information on NAEP, see *supplemental note 4.*

Figure 11-1. Average mathematics scale scores of 4th- and 8th-grade students: Selected years, 1990–2009



NOTE: National Assessment of Educational Progress (NAEP) mathematics scores range from 0 to 500. Student assessments are not designed to permit comparisons across grades. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1990–2009 Mathematics Assessments, NAEP Data Explorer.

Figure 11-2. Percentage distribution of 4th- and 8th-grade students across NAEP mathematics achievement levels: Selected years, 1990–2009



[1] Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996.
NOTE: Achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance. Detail may not sum to totals because of rounding. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1990–2009 Mathematics Assessments, NAEP Data Explorer.

Mathematics Achievement Gaps

In 2009, the mathematics achievement gap between White and Black 8th-graders was 32 points; this was not measurably different from the gap in 2007 or 1990.

In 2009, average National Assessment for Educational Progress (NAEP) mathematics scale scores for White, Black, and Hispanic 4th-graders were not measurably different from the scores in 2007, but the 2009 scores were higher than those from the assessment years prior to 2007 (see table A-12-1). White 4th-graders, however, scored higher on average than Black and Hispanic 4th-graders on all assessments given since 1990, a disparity referred to as the achievement gap. The achievement gap is the difference between the average scores of two student subgroups on the standardized NAEP mathematics assessment. The achievement gap between White and Black students in 2009 (26 points) was not measurably different from the gap in 2007 (26 points), but it was smaller than the gap in 1990 (32 points). The 21-point achievement gap between White and Hispanic 4th-graders in 2009 was not measurably different from the gaps in 2007 or 1990. In 2009, about 51 percent of White, 16 percent of Black, and 22 percent of Hispanic 4th-graders performed at or above the Proficient achievement level (see table A-12-3). Eight percent of White students and 1 percent each of Hispanic and Black students performed at the *Advanced* level on the NAEP mathematics assessment.

At grade 8, average mathematics scores in 2009 for White, Black, and Hispanic students were higher than their scores on any of the previous assessments since 1990 (see table A-12-2). As with 4th-graders, White 8th-graders scored higher on average than Black and Hispanic students on all NAEP assessments given since the first one in 1990. Because all three racial/ethnic groups have made progress, neither the 2009 achievement gap between White and Black 8th-graders nor the gap between White and Hispanic 8th-graders was measurably different from the corresponding gaps in 2007 or 1990. For 8th-graders in 2009, the White-Black achievement gap was 32 points and the White-Hispanic achievement gap was 26 points.

In 2009, about 44 percent of White, 12 percent of Black, and 17 percent of Hispanic 8th-graders performed at or above Proficient (see table A-12-3). Eleven percent of White, 2 percent of Hispanic, and 1 percent of Black 8th-graders performed at the *Advanced* level on the NAEP mathematics assessment.

In addition to the achievement gap observed in 2009 between White, Black, and Hispanic students, Asian/Pacific Islander students also scored higher on average than Black, Hispanic, and American Indian/Alaska Native students at grade 4 and grade 8. Further, Asian/Pacific Islander students scored higher on average than White students. In 2009, the achievement gap between Asian/Pacific Islander and Whites was 7 points for 4th-graders and 8 points for 8th-graders.

In 2009, average mathematics scores for male and female 4th-graders were not measurably different from their scores in 2007, but from 1990 to 2007 their scores increased (see table A-12-1). On average, male students scored 2 points higher than female students in 2009. This gap was not measurably different from the gap in 2007 or 1990. In 2009, about 41 percent of males scored at or above Proficient, compared with 37 percent of females. About 7 percent of males and 5 percent of females scored at the *Advanced* level.

At grade 8, average mathematics scores increased from 2007 to 2009 for both male and female students. As with 4th-graders, since the increases were comparable for both males and females, the 2-point score gap was not measurably different from the gap in 2007 or 1990. In 2009, about 36 percent of male 8th-graders scored at or above Proficient, compared with 32 percent of females. About 9 percent of males and 7 percent of females scored at the *Advanced* level.

For more information: *Tables A-12-1 through A-12-3; Indicator 11*

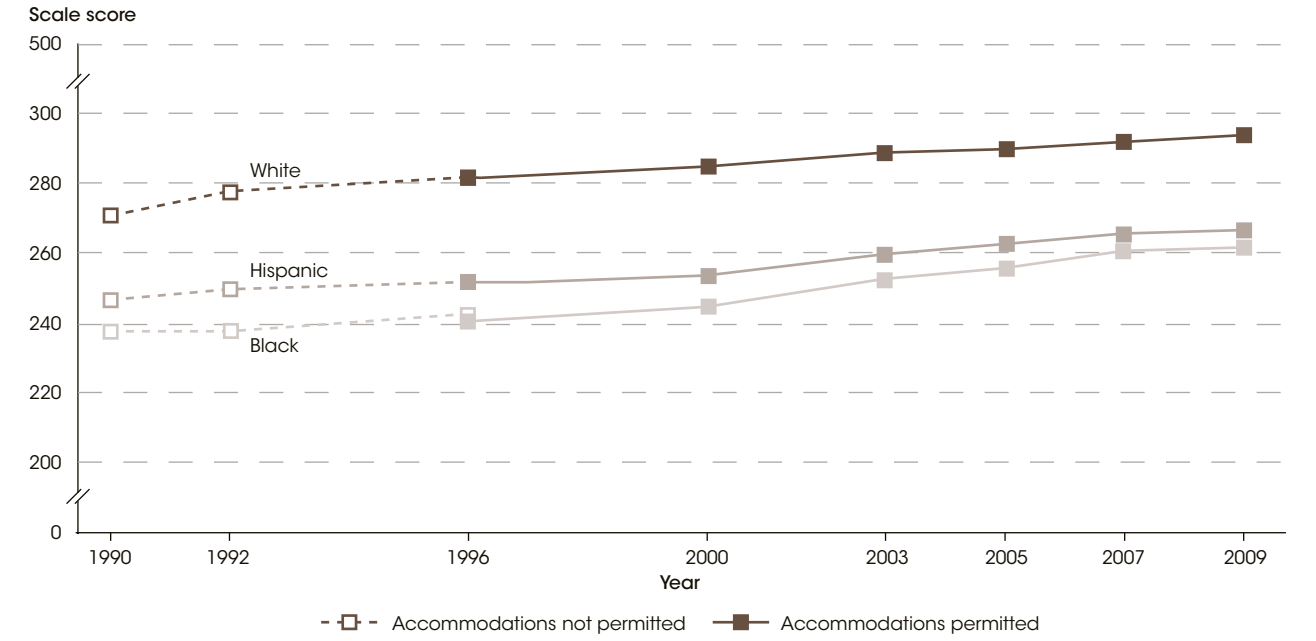
Glossary: *Achievement levels*

Technical Notes

NAEP mathematics scores range from 0 to 500. Score gaps are calculated based on differences between unrounded scores. The achievement levels define what students should know and be able to do: *Basic* indicates partial mastery of fundamental skills, *Proficient* indicates demonstrated competency over challenging subject matter, and *Advanced* indicates superior performance.

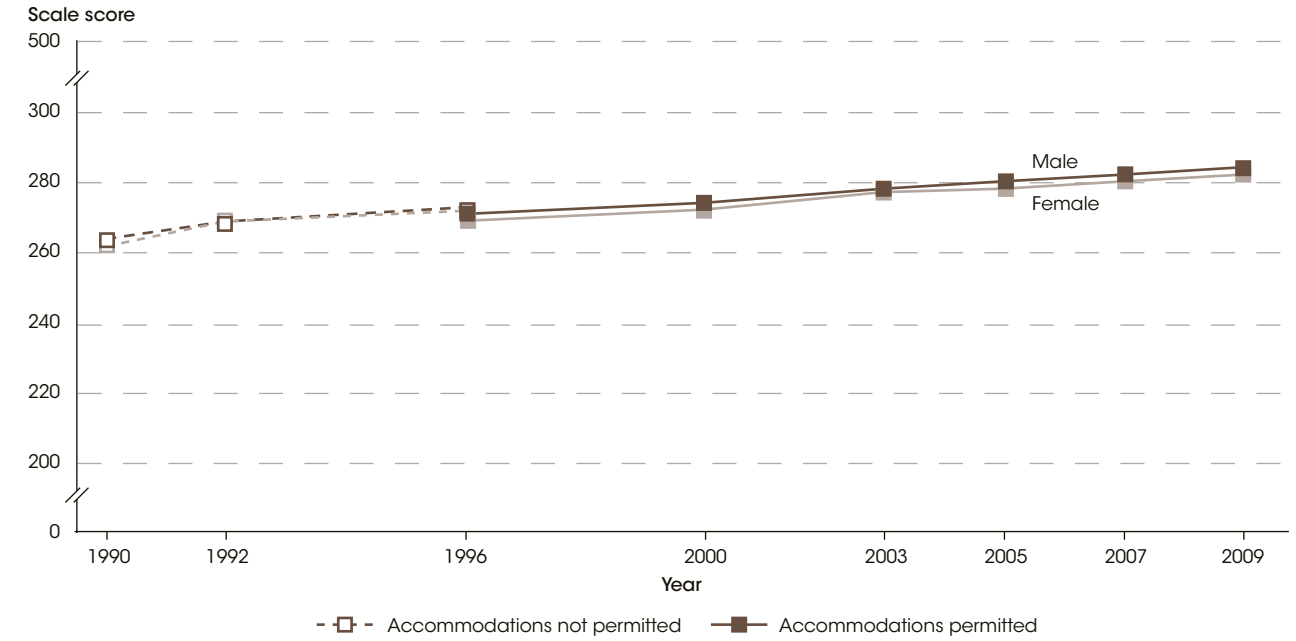
Testing accommodations for children with disabilities and limited-English-proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1.* For more information on NAEP, see *supplemental note 4.*

Figure 12-1. Average mathematics scale scores of 8th-grade students, by race/ethnicity: Selected years, 1990–2009



NOTE: National Assessment of Educational Progress (NAEP) mathematics scores range from 0 to 500. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1*. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1990–2009 Mathematics Assessments, NAEP Data Explorer.

Figure 12-2. Average mathematics scale scores of 8th-grade students, by sex: Selected years, 1990–2009



NOTE: National Assessment of Educational Progress (NAEP) mathematics scores range from 0 to 500. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English proficient students were not permitted in 1990 and 1992; students were tested with and without accommodations in 1996. For more information on NAEP, see *supplemental note 4*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1990–2009 Mathematics Assessments, NAEP Data Explorer.

Reading and Mathematics Score Trends

The average reading and mathematics scores on the long-term trend National Assessment of Educational Progress were higher in 2008 than in the early 1970s for 9- and 13-year-olds; scores for 17-year-olds were not measurably different from the early 1970s.

The long-term trend National Assessment of Educational Progress (NAEP) provides information on the reading and mathematics achievement of 9-, 13-, and 17-year-olds in the United States. Data have been collected every 2 to 5 years since 1971 for reading and since 1973 for mathematics. Since 1990, reading and mathematics assessments have been administered in the same years. These results may differ from the main NAEP results presented in *indicators 9, 10, 11,* and *12* since the content of the long-term trend assessment is intended to measure the same knowledge and skills to allow for comparisons over a long period of time, while the main NAEP undergoes changes periodically to reflect current curricula and emerging standards (see *supplemental note 4*). Several administrative changes were initiated in the 2004 long-term trend assessment that have been carried forward to 2008, including allowing accommodations for students with disabilities and for English language learners. To ensure that any changes in scores were due to actual changes in student performance and not due to changes in the assessment itself, two assessments were conducted in 2004—one based on the previous assessment and one based on the modified assessment. In 2008, only the modified assessment was used. Scores from both assessments are shown for 2004; the results for all assessments prior to 2004 are labeled as the original assessment. The results for the modified 2004 and 2008 assessments are labeled as the revised assessment.

NAEP long-term trend results indicate that the reading and mathematics achievement of 9- and 13-year-olds improved between the early 1970s and 2008 (see tables A-13-1 and A-13-2). In reading, 9-year-olds scored higher in 2008 than in any previous assessment year, scoring 4 points higher than in 2004 and 12 points higher than in 1971. The average reading score for 13-year-olds in 2008 was higher than that in both 2004 and 1971, but the 2008 score was not significantly different from some of the scores in the intervening assessment years. In mathematics, the average scores for 9- and 13-year-olds were higher in 2008 than in all previous assessment years. The 2008 average mathematics score for 9-year-olds was a 4-point increase over the 2004 score and a 24-point increase over the 1973 score. Thirteen-year-olds scored 3 points higher in 2008 than in 2004 and 15 points higher in 2008 than in 1973 in mathematics.

The performance of 17-year-olds on the 2008 reading and mathematics assessments was not measurably different from their performance in the early 1970s. The average reading score for 17-year-olds was higher in 2008 than in 2004 but was not significantly different from the score in 1971. In mathematics, the average score for 17-year-olds in 2008 was not significantly different from the scores in either 2004 or 1973.

White and Black 9-year-olds had higher average reading scores in 2008 than they had in all previous assessment years. The 2008 average reading score for 9-year-old White students was 14 points higher in 2008 than in 1971, and the 2008 reading score for Black students was 34 points higher in 2008 than in 1971. At age 13, White and Black students had higher reading scores in 2008 than in 2004 and 1971. Between 1971 and 2008, White students showed a 7-point gain and Black students showed a 25-point gain. At age 17, the average reading score increased for White students from 2004 to 2008 but showed no significant change for Black students over this period. Between 1971 and 2008, White 17-year-old students showed a gain of 4 points, while Black students showed a gain of 28 points. The average reading score for Hispanic 9-year-olds was higher in 2008 than in all previous assessment years. Hispanic students at ages 13 and 17 scored higher in reading in 2008 than in 1975.

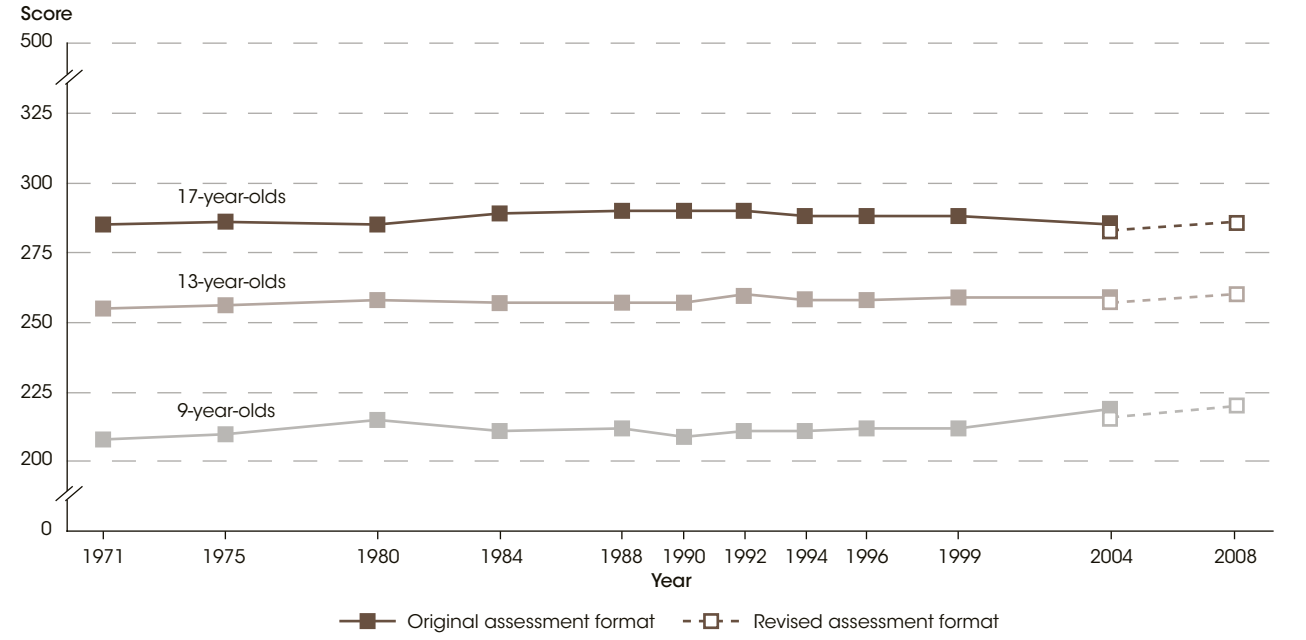
At age 9, the average mathematics score increased from 2004 to 2008 for White students but showed no significant change for Black students. In comparison to mathematics scores in 1973, mathematics scores in 2008 were 25 points higher for White 9-year-olds and 34 points higher for Black 9-year-olds. At age 13, neither White nor Black students' mathematics scores showed a significant change from 2004 to 2008. However, from 1973 to 2008, White 13-year-olds gained 16 points, compared with a 34-point gain for Black 13-year-olds. Similarly, at age 17, neither White nor Black students' scores showed a significant change between 2004 and 2008, whereas between 1973 and 2008, the score for White students increased 4 points and the score for Black students increased 17 points. At each age, there was no significant change in mathematics scores for Hispanic students from 2004 to 2008, but their scores did increase between 1973 and 2008.

For more information: *Tables A-13-1 and A-13-2; Indicators 9, 10, 11, and 12*

Technical Notes

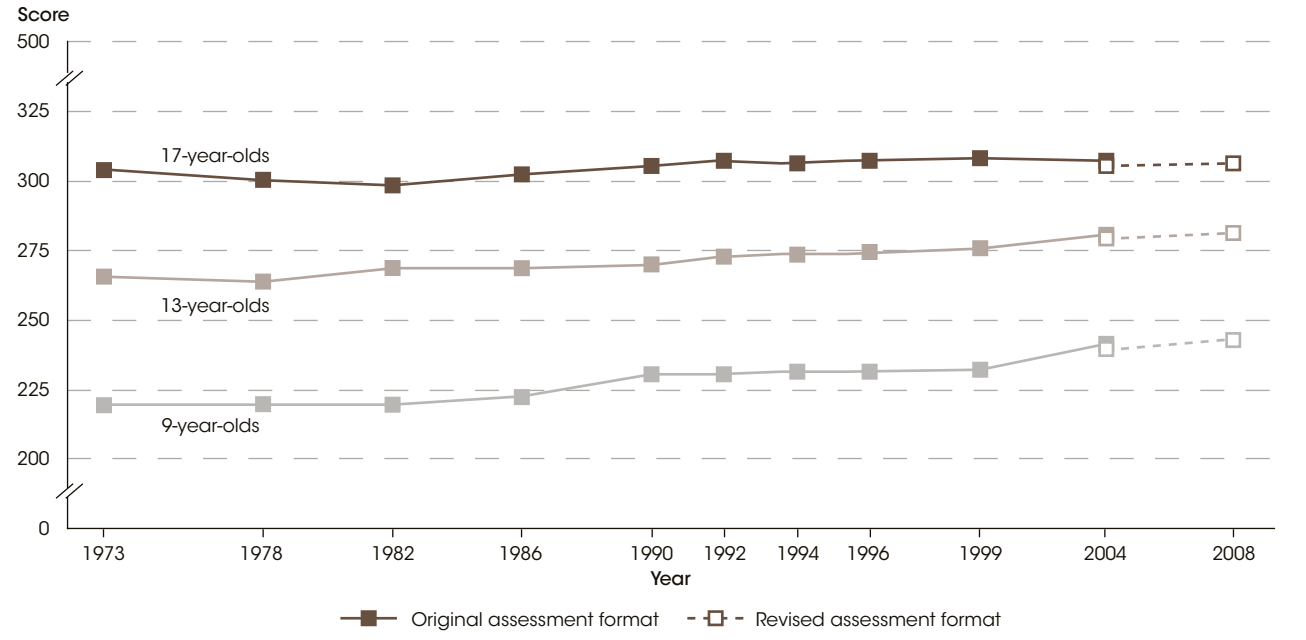
The long-term trend NAEP score ranges from 0 to 500. Scores include both public and private school students. Score-point changes are based on the difference of unrounded scores, as opposed to the rounded scores shown in the figures. Race categories exclude persons of Hispanic ethnicity. All comparisons referring to 2004 are based on the revised assessment scores. For more information on race/ethnicity, see *supplemental note 1.* For more information on NAEP, see *supplemental note 4.*

Figure 13-1. Average reading scale scores on the long-term trend National Assessment of Educational Progress (NAEP), by age: Various years, 1971 through 2008



NOTE: Includes public and private schools. NAEP scores range from 0 to 500. Scores for the revised assessment format reflect the inclusion of and accommodations for students with disabilities and English language learners. For more information on NAEP, see *supplemental note 4*.
SOURCE: Rampey, B.D., Dion, G.S., and Donahue, P.L. (2009). *NAEP 2008 Trends in Academic Progress in Reading and Mathematics* (NCES 2009-479). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC.

Figure 13-2. Average mathematics scale scores on the long-term trend National Assessment of Educational Progress (NAEP), by age: Various years, 1973 through 2008



NOTE: Includes public and private schools. NAEP scores range from 0 to 500. Scores for the revised assessment format reflect the inclusion of and accommodations for students with disabilities and English language learners. For more information on NAEP, see *supplemental note 4*.
SOURCE: Rampey, B.D., Dion, G.S., and Donahue, P.L. (2009). *NAEP 2008 Trends in Academic Progress in Reading and Mathematics* (NCES 2009-479). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC.

Achievement in the Arts

On the 2008 National Assessment of Educational Progress (NAEP), the average responding scores of 8th-graders in high-poverty schools were 45 points lower in music and 43 points lower in visual arts than the respective scores of 8th-graders in low-poverty schools.

The 2008 National Assessment of Educational Progress (NAEP) in the arts was given to a nationally representative sample of 8th-grade public and private school students. Two separate scores are reported for the arts assessment: average responding score and average creating task score. The average responding score is reported for both music and visual arts and reflects students' ability to observe, describe, analyze, and evaluate existing works of music and art through multiple-choice and constructed-response questions. The average creating task score was collected only for visual arts and reflected students' ability to create and communicate through original works of art. To discuss both music and art, only the average responding scores are presented in this indicator—these average scores for music and visual arts are reported on two separate NAEP scales, each ranging from 0 to 300, with the average set at 150. Although the results for music and visual arts cannot be compared, the differences between student groups exhibited similar patterns in both the music and visual arts disciplines.

Average scores for both the music and visual arts assessments varied by student characteristics (see table A-14-1). Females scored 10 points higher on average than males in music and 11 points higher in visual arts (155 vs. 145 for both subjects). In music, the scores of White and Asian/Pacific Islander students were 29 to 32 points higher than those of Black and Hispanic students, and in visual arts, White and Asian/Pacific Islander students scored 22 to 31 points higher than Black and Hispanic students. For example, the average music score for Whites was 161, compared with 130 for Blacks and 129 for Hispanics. Looking at the student characteristic of parents' education, it can be seen that the performance gaps between students whose parents graduated from college and those whose parents did not finish high school were 34 points for music and 24 points for visual arts (161 vs. 127 and 161 vs. 137, respectively).

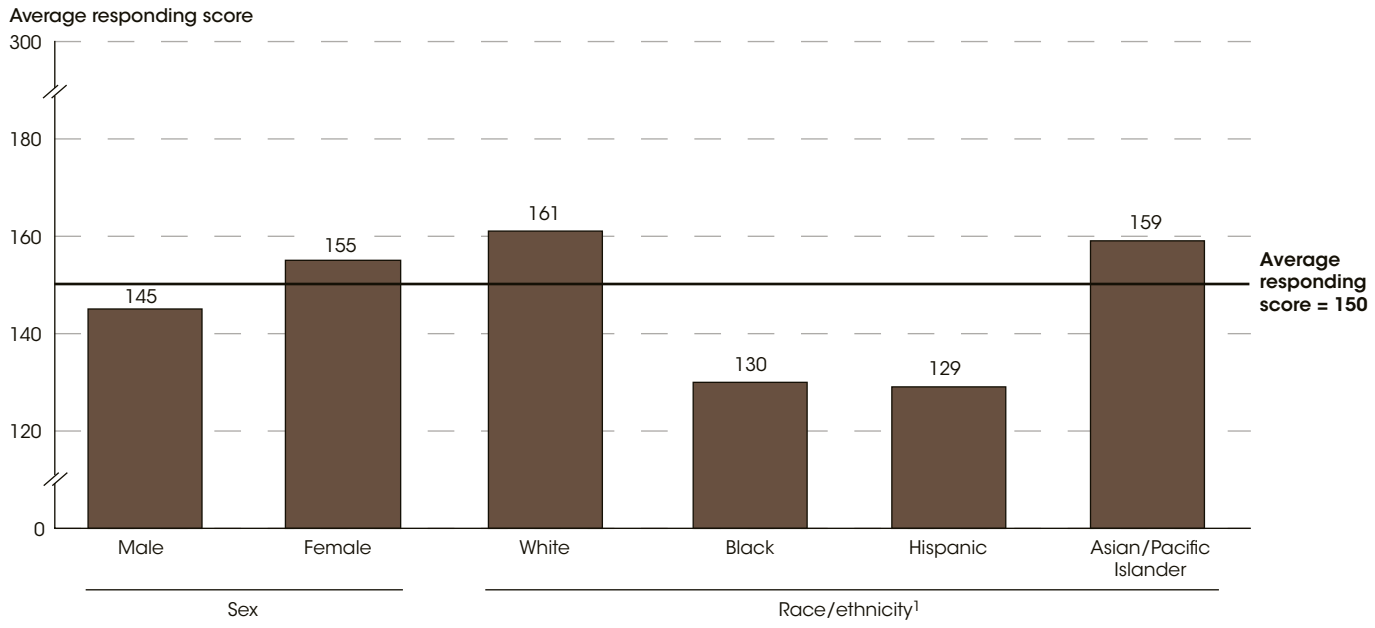
In 2008, 8th-grade students at private schools scored 14 points higher on the music assessment than students at public schools (163 vs. 149), but there was no measurable difference between those groups in scores on the visual arts assessment. Eighth-graders who attended city schools had an average score of 142 in music, which was lower than the scores of their peers at suburban (155), town (156), and rural schools (150). Students who attended city schools also had a lower average score in visual arts than did students from suburban schools (144 vs. 155). Students in high-poverty schools (schools where more than 75 percent of students are eligible for free or reduced-price lunch [FRPL]) had average scores that were 45 points lower in music than the scores of students in low-poverty schools (schools where 25 percent or fewer of students are eligible for FRPL) (123 vs. 168). A similar pattern was found in the scores of students at high- versus low-poverty schools on the visual arts assessment.

For more information: *Tables A-14-1 and A-14-2*
Glossary: *National School Lunch Program*

Technical Notes

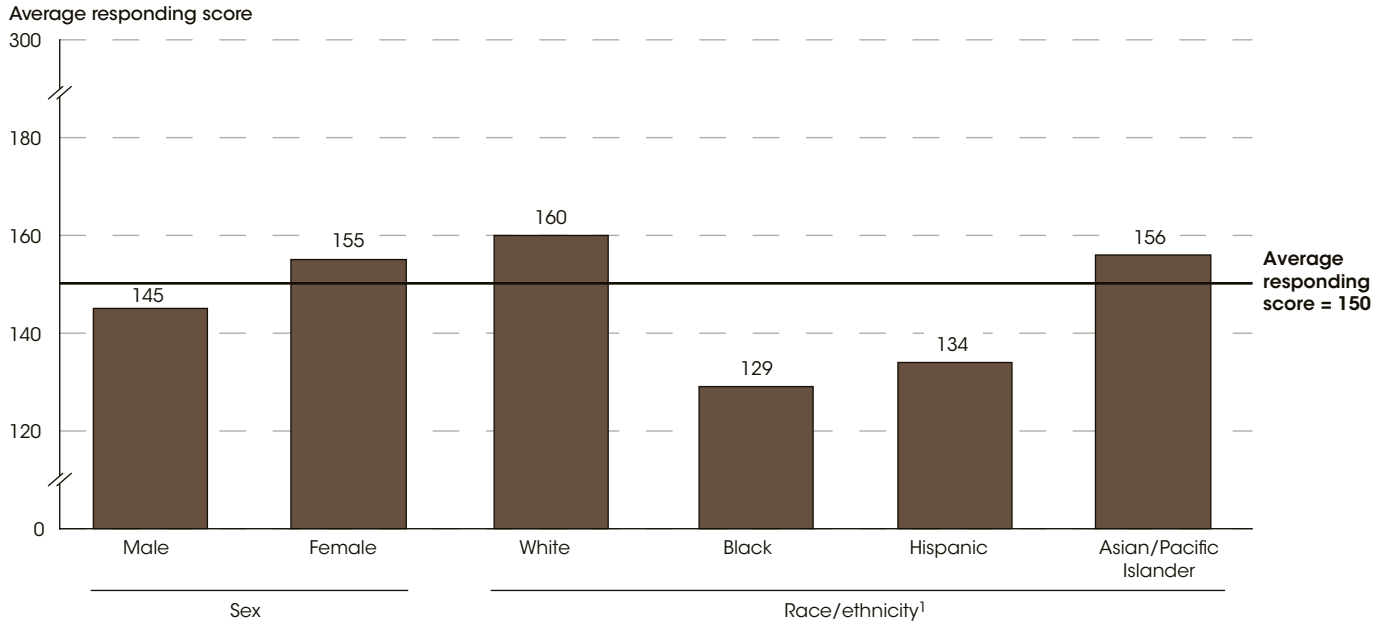
Music and visual arts are two distinct disciplines; therefore, results are reported separately for each area and cannot be compared. Differences are calculated based on unrounded scores. For more information on NAEP, see *supplemental note 4.* For more information on parents' education, race/ethnicity, locale, and free or reduced-price lunch eligibility, see *supplemental note 1.*

Figure 14-1. Average responding scores in music for 8th-grade students, by sex and race/ethnicity: 2008



[1] Race categories exclude persons of Hispanic ethnicity.
NOTE: Students were assessed on their ability to observe, describe, analyze, and evaluate existing works of music. The average scores for music are reported on a scale ranging from 0 to 300, with the average set at 150. Due to small sample size, data for American Indians/Alaska Natives did not meet reporting standards. For more information on the National Assessment of Educational Progress (NAEP), see *supplemental note 4*. For more information on race/ethnicity, see *supplemental note 1*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2008 Music Assessments, NAEP Data Explorer.

Figure 14-2. Average responding scores in visual arts for 8th-grade students, by sex and race/ethnicity: 2008



[1] Race categories exclude persons of Hispanic ethnicity.
NOTE: Students were assessed on their ability to observe, describe, analyze, and evaluate existing works of art. The average scores for visual arts are reported on a scale ranging from 0 to 300, with the average set at 150. Due to small sample size, data for American Indians/Alaska Natives did not meet reporting standards. For more information on the National Assessment of Educational Progress (NAEP), see *supplemental note 4*. For more information on race/ethnicity, see *supplemental note 1*.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2008 Visual Arts Assessments, NAEP Data Explorer.

International Mathematics Content

U.S. 4th-graders outperformed students in more countries when assessed on data display *than they did in* number *and* geometric shapes and measures. *Assessed on* data and chance, number, algebra, *and* geometry, *U.S. 8th-graders outperformed students in the most countries in* data and chance *and in the fewest countries in* geometry.

Conducted in 2007, the Trends in International Mathematics and Science Study (TIMSS) assessed students' mathematics performance in 36 countries at grade 4 and in 48 countries at grade 8. TIMSS is curriculum based and measures what students have learned against what is expected to be taught in the participating countries by the end of grades 4 and 8. In addition to providing an overall mathematics score, TIMSS measures three content domains at grade 4 (*number, geometric shapes and measures,* and *data display*) and four at grade 8 (*number, algebra, geometry,* and *data and chance*).

U.S. 4th-graders scored between 22 and 43 points higher than the TIMSS scale average of 500 across the mathematics content domains in 2007 (see table A-15-1). U.S. 4th-graders outperformed students in more countries in *data display* than they did in the other content domains of *number* and *geometric shapes and measures.* In *data display,* U.S. 4th-graders outperformed their peers in 28 countries. In *number* and *geometric shapes and measures,* they outperformed their peers in 22 and 20 countries, respectively. Students in 10 countries outperformed U.S. 4th-graders in *geometric shapes and measures,* 9 countries in *number,* and 4 countries in *data display.*

At the 8th grade, U.S. students' average scores in *number* and *data and chance* were 10 and 31 points, respectively, above the TIMSS scale averages of 500 (see table A-15-2). However, U.S. 8th-graders' average score in *geometry* was 20 points lower than the TIMSS scale average. There was no measurable difference between U.S. 8th-graders' average score and the TIMSS scale average in *algebra.* U.S. 8th-graders outperformed their peers in the most countries in *data and chance* and in the fewest countries in *geometry.* In *data and chance,* U.S. 8th-graders outperformed their peers in 38 countries. In *algebra, number,* and *geometry,* they outperformed their peers in 37, 35, and 29 countries, respectively. Students in 14 countries outperformed U.S. 8th-graders in *geometry,* 7 countries in *algebra,* 6 countries in *data and chance,* and 5 countries in *number.*

In 2007, for *number* and *data display,* there were differences in the scores of 4th-grade males and females in at least half of the 35 participating countries with reliable data (see table A-15-3). Where differences were detected, males were more likely to outperform females in *number,* while females were more likely to outperform males in *geometric shapes and measures* and *data display.* Males outperformed females in *number* in 19 countries, including the United States, while females outperformed males in 3 countries. In *geometric shapes and measures,* females outperformed males in 11 countries while males outperformed females in 2 countries; in *data display,* females outperformed males in 15 countries while males outperformed females in 3 countries.

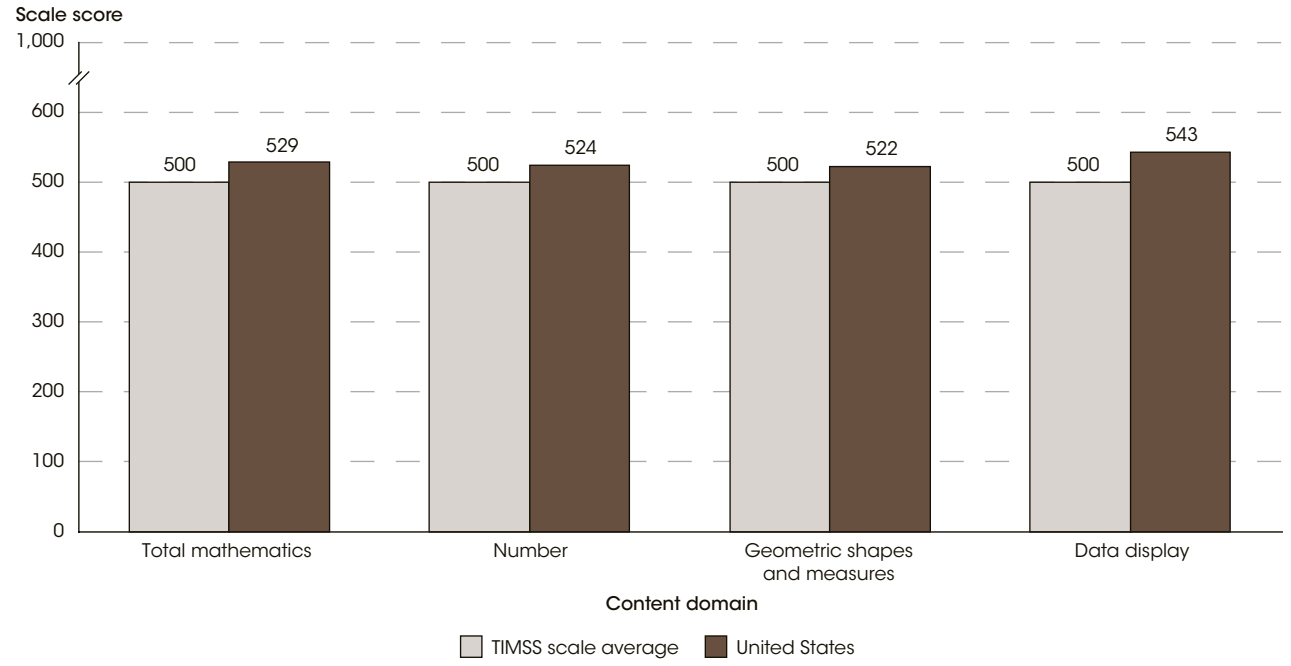
At grade 8, for two of the four content domains, differences were detected in the scores of males and females in at least half of the 48 countries participating (see table A-15-4). Where differences were detected, males outperformed females in *number* in 20 countries, including the United States, while females outperformed males in 7 countries. In *algebra,* males outperformed females in 4 countries, while females outperformed males in 31 countries. In the other two content domains, males outperformed females in *geometry* in 6 countries, including the United States, while females outperformed males in 15 countries; in *data and chance,* males outperformed females in 9 countries, including the United States, while females outperformed males in 14 countries.

For more information: *Tables A-15-1 through A-15-4*
Glossary: *International Target Population, National Target Population*

Technical Notes

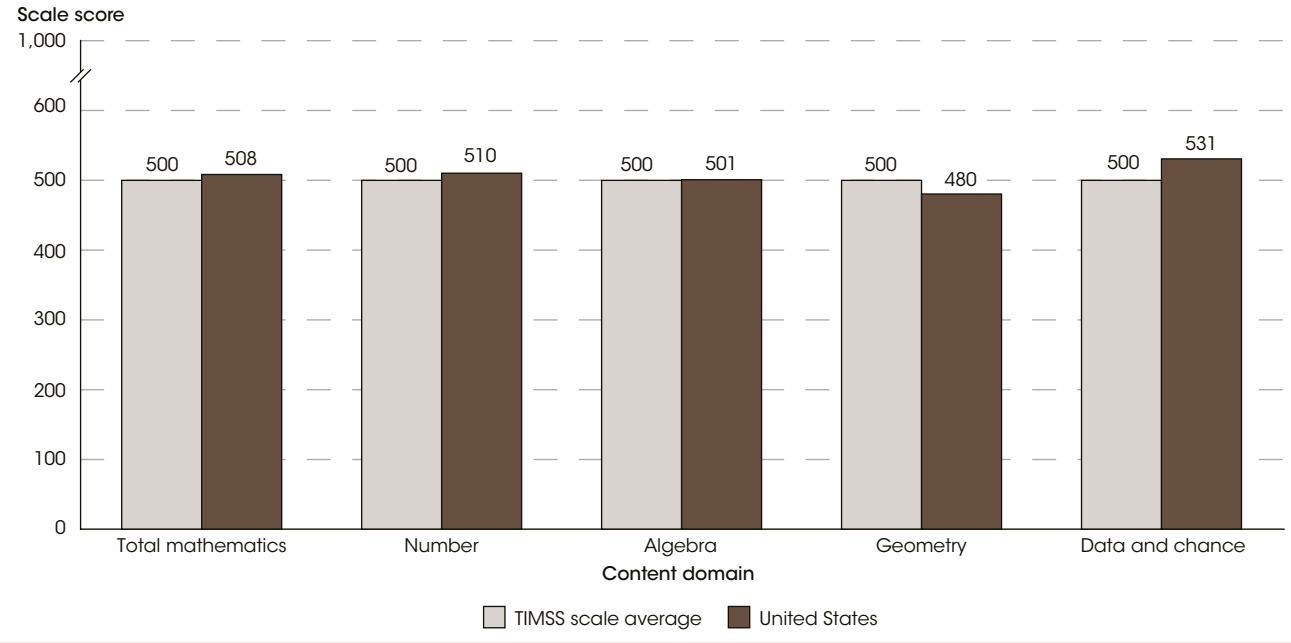
The term "country" is used to refer to all participating entities, even those that are subnational entities of larger countries (e.g., Hong Kong SAR). The number of countries reported here differs from the number reported in the international TIMSS reports. Eight other educational jurisdictions participated in TIMSS: the states of Massachusetts and Minnesota; the Canadian provinces of Alberta, British Columbia, Ontario, and Quebec; the Basque region of Spain; and Dubai, United Arab Emirates. Morocco participated at grade 8, but due to sampling difficulties its data are not shown. The TIMSS scale average is 0 to 1,000, with a mean established at 500 and a standard deviation of 100, based on the average of all countries that participated in 1995. Successive assessments were scaled so that scores are equivalent from assessment to assessment. Thus, a score of 500 in grade 8 mathematics in 2007 is equivalent to a score of 500 in grade 8 mathematics in 2003, 1999, and 1995. For more information on TIMSS, see *supplemental note 5.*

Figure 15-1. Average mathematics scale scores for 4th-grade students, by content domain: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 to 95 percent of the National Target Population in the United States.
SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2009). *Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context* (NCES 2009-001 Revised), tables 3 and 6, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Figure 15-2. Average mathematics scale scores for 8th-grade students, by content domain: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 to 95 percent of the National Target Population in the United States.
SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2009). *Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context* (NCES 2009-001 Revised), tables 3 and 7, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

International Science Content

U.S. 4th-graders outperformed students in more countries in life science *and* physical science *than they did in* earth science. *U.S. 8th-graders outperformed students in more countries in* biology *and* earth science *than they did in* chemistry *and* physics.

Conducted in 2007, the Trends in International Mathematics and Science Study (TIMSS) assessed students' science performance in 36 countries at grade 4 and in 48 countries at grade 8. TIMSS is curriculum based and measures what students have learned against what is expected to be taught in the participating countries by the end of grades 4 and 8. In addition to providing an overall science score, TIMSS measures three content domains at grade 4 (*life science, physical science,* and *earth science*) and four at grade 8 (*biology, chemistry, physics,* and *earth science*).

U.S. 4th-graders scored between 33 and 40 points higher than the TIMSS scale average of 500 across the science content domains in 2007 (see table A-16-1). U.S. 4th-graders outperformed students in more countries in *life science* and *physical science* than they did in *earth science.* In *life science* and *physical science,* U.S. 4th-graders outperformed their peers in 25 and 24 countries, respectively. In *earth science,* they outperformed their peers in 21 countries. Students in seven countries scored higher than U.S. 4th-graders in *physical science,* while in *life science* and *earth science* students in three countries scored higher than U.S. 4th-graders.

At grade 8, U.S. students scored higher than the TIMSS scale average in three of the four science content domains in 2007 (see table A-16-2). U.S. 8th-graders' average scores in *biology, chemistry,* and *earth science* were 10 to 30 points above the TIMSS scale average of 500. U.S. 8th-graders' average score in *physics* was not measurably different from the TIMSS scale average. U.S. 8th-graders outperformed students in more countries in *biology* and *earth science* than they did in *chemistry* and *physics.* In both *biology* and *earth science,* U.S. 8th-graders outperformed their peers in 36 countries. In *chemistry* and *physics,* they outperformed their peers in 35 and 32 countries, respectively. U.S. 8th-graders were outperformed by 8th-graders of another country in 10 instances in *physics,* in 9 instances in *chemistry,* and in 5 instances in both *biology* and *earth science.*

In 2007, for *life science* and *physical science,* there were no measurable differences in the scores of 4th-grade males and females in more than half of the 35 participating countries with reliable data, including the United States (see table A-16-3). For *earth science,* differences were detected in the scores of 4th-grade males and females in more than half of the countries. Where differences were detected, females outperformed males in *life science* in 10 countries while males outperformed females in 5 countries. In *physical science,* females outperformed males in 6 countries while males outperformed females in 4 countries; in *earth science,* males outperformed females in 16 countries, including the United States, while females outperformed males in 5 countries.

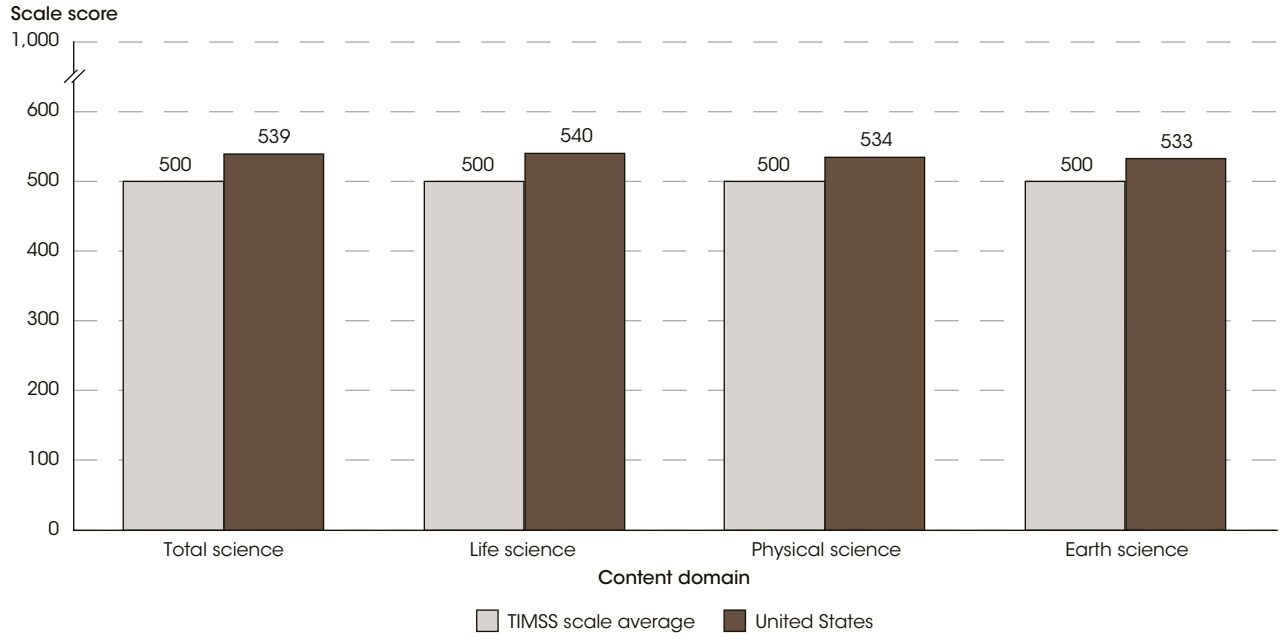
At grade 8, for all four content domains, differences were detected in the scores of males and females in more than half of the 48 participating countries (see table A-16-4). Where differences were detected, females outperformed males in *biology* in 25 countries while males outperformed females in 5 countries, including the United States. In *chemistry,* females outperformed males in 21 countries while males outperformed females in 6 countries. Males outperformed females in *physics* in 26 countries, including the United States, while females outperformed males in 8 countries. In *earth science,* males outperformed females in 19 countries, including the United States, while females outperformed males in 11 countries.

For more information: *Tables A-16-1 through A-16-4*
Glossary: *International Target Population, National Target Population*

Technical Notes

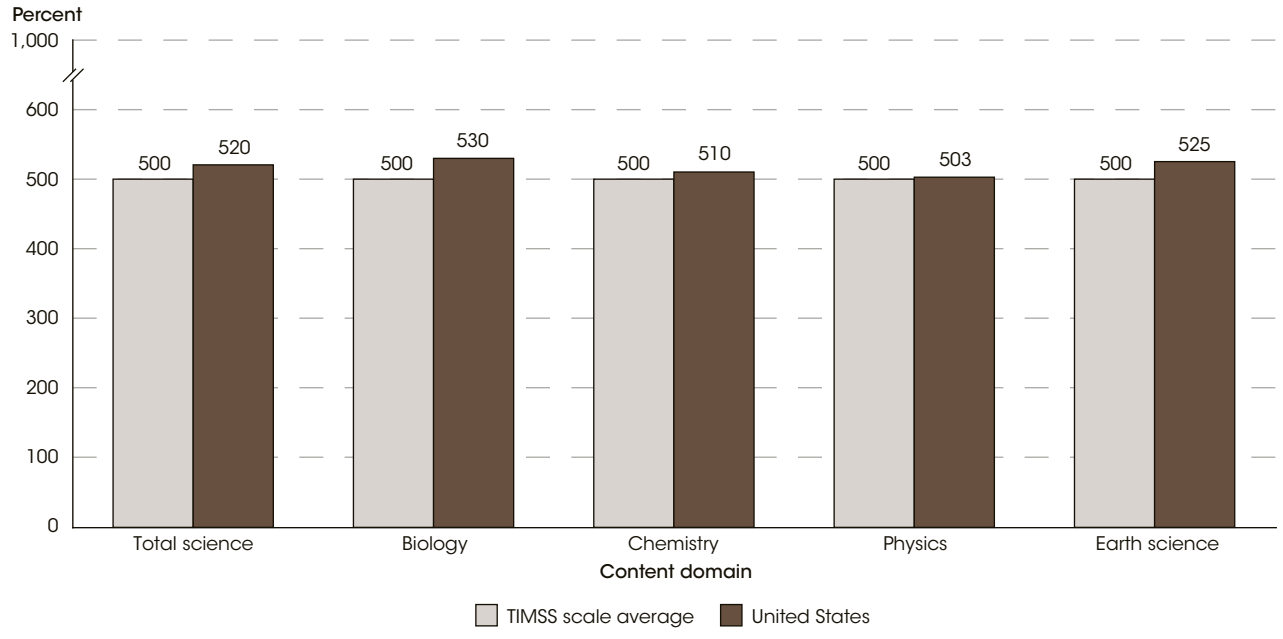
The term "country" is used to refer to all participating entities, even those that are subnational entities of larger countries (e.g., Hong Kong SAR). The number of countries reported here differs from the number reported in the international TIMSS reports. Eight other educational jurisdictions participated: the states of Massachusetts and Minnesota; the Canadian provinces of Alberta, British Columbia, Ontario, and Quebec; the Basque region of Spain; and Dubai, United Arab Emirates. Morocco participated at grade 8, but due to sampling difficulties its data are not shown. The TIMSS scale average is 0 to 1,000, with a mean established at 500 and a standard deviation of 100, based on the average of all countries that participated in 1995. Successive assessments were scaled so that scores are equivalent from assessment to assessment. Thus, a score of 500 in grade 8 mathematics in 2007 is equivalent to a score of 500 in grade 8 mathematics in 2003, 1999, and 1995. For more information on TIMSS, see *supplemental note 5.*

Figure 16-1. Average science scale scores for 4th-grade students, by content domain: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 to 95 percent of the National Target Population in the United States.
SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2009). *Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context* (NCES 2009-001 Revised), tables 11 and 14, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Figure 16-2. Average science scale scores for 8th-grade students, by content domain: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 to 95 percent of the National Target Population in the United States.
SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2009). *Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context* (NCES 2009-001 Revised), tables 11 and 15, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Annual Earnings of Young Adults

In 2008, young adults with a bachelor's degree earned 28 percent more than young adults with an associate's degree, 53 percent more than young adult high school completers, and 96 percent more than young adults who did not earn a high school diploma.

In 2008, some 65 percent of young adults ages 25–34 in the labor force were employed full time throughout a full year. The percentage of young adults working full-time, full-year was generally higher for those with higher levels of educational attainment. For example, 72 percent of young adults with a bachelor's degree or higher were full-time, full-year workers in 2008, compared with 62 percent of young adults with a high school diploma or its equivalent. Among young adults employed full-time, full-year, higher educational attainment was associated with higher median earnings. This pattern of higher earnings corresponding with higher levels of educational attainment was consistent for each year shown between 1995 and 2008 (see table A-17-1). For example, young adults with a bachelor's degree consistently had higher median earnings than those with less education. This pattern held for male, female, White, Black, Hispanic, and Asian subgroups.

In 2008, the median of the earnings of young adults with a bachelor's degree was $46,000, while the median was $36,000 for those with an associate's degree, $30,000 for those with a high school diploma or its equivalent, and $23,500 for those who did not earn a high school diploma or its equivalent. In other words, in 2008, young adults with a bachelor's degree earned 28 percent more than young adults with an associate's degree, 53 percent more than young adult high school completers, and 96 percent more than young adults who did not earn a high school diploma. In 2008, the median of the earnings of young adults with a master's degree or higher was $55,000—20 percent more than young adults with a bachelor's degree.

Comparing the median of those with at least a bachelor's degree and those with each lower level of educational attainment, the earnings difference increased between 1980 and 2008, in constant 2008 dollars. This increase in the earnings differential over this period was primarily due to the decrease in earnings for those with less than a bachelor's degree. However, over the more recent, shorter period between 2000 and 2008, there was generally no measurable change in the earnings difference between these groups. For example, in 1980, young adults with a bachelor's degree or higher earned $15,700 more than those who did not earn a high school diploma or its equivalent. In 2000, this difference increased to $25,000 and was $26,500 in 2008. In 1980, young adults with a bachelor's degree or higher earned $10,500 more than high school completers. In 2000, this difference increased to $18,800, and in 2008 it was $20,000. Between 2000 and 2008, there was no measurable trend in the earnings difference between those with a bachelor's degree and those with a master's degree or higher. In 2000, young adults with a master's degree or higher earned $7,500 more than their peers with a bachelor's degree; in 2005 this earnings difference was $10,100, and in 2008 this earnings difference was $9,000.

Earnings differences were also observed by sex and race/ethnicity. In 2008, at every education level, the median of the earnings of young adult males was higher than the median for young adult females. For example, in 2008, young adult males with a bachelor's degree earned $53,000, while their female counterparts earned $42,000. In the same year, the median of White young adults' earnings was higher than that of Black and Hispanic young adults' earnings at each educational level, except the level of master's degree or higher, where there were no measurable differences. Asian young adults with a bachelor's degree or master's degree or higher had higher earnings than their White and Black counterparts in 2008. The median of those with at least a master's degree in 2008 was $70,000 for Asian young adults, $55,000 for White young adults, $53,000 for Black young adults, and $52,000 for Hispanic young adults.

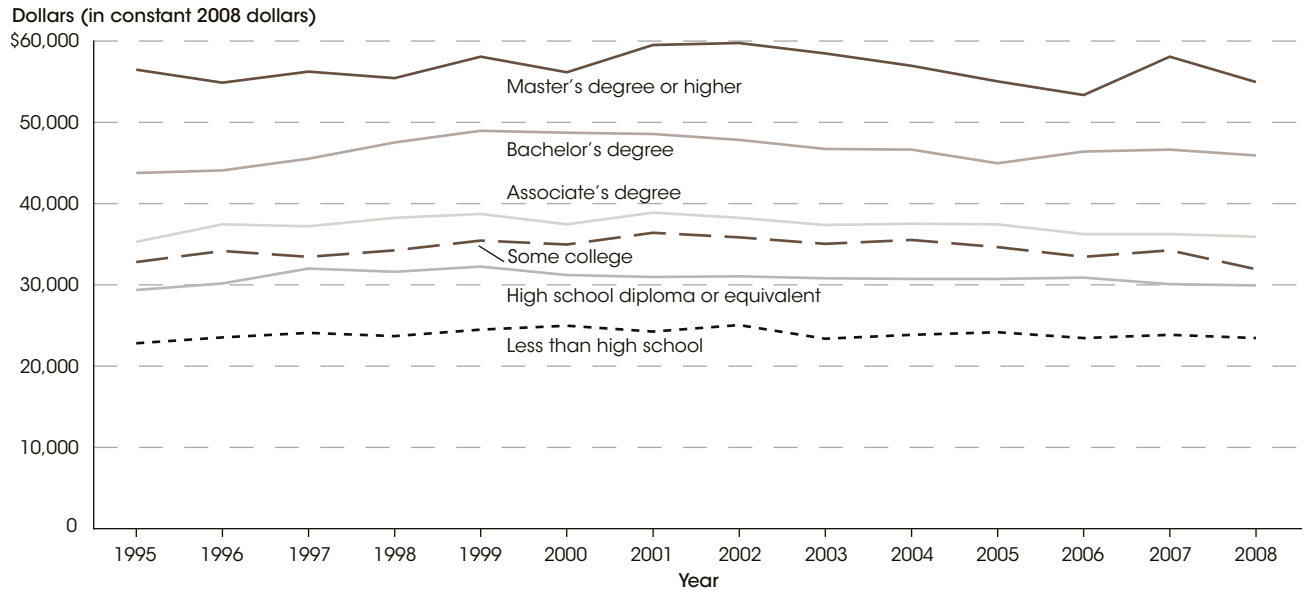
For more information: *Table A-17-1*

Glossary: *Bachelor's degree, Constant dollars, Consumer Price Index (CPI), Educational attainment, High school completion, High school diploma*

Technical Notes

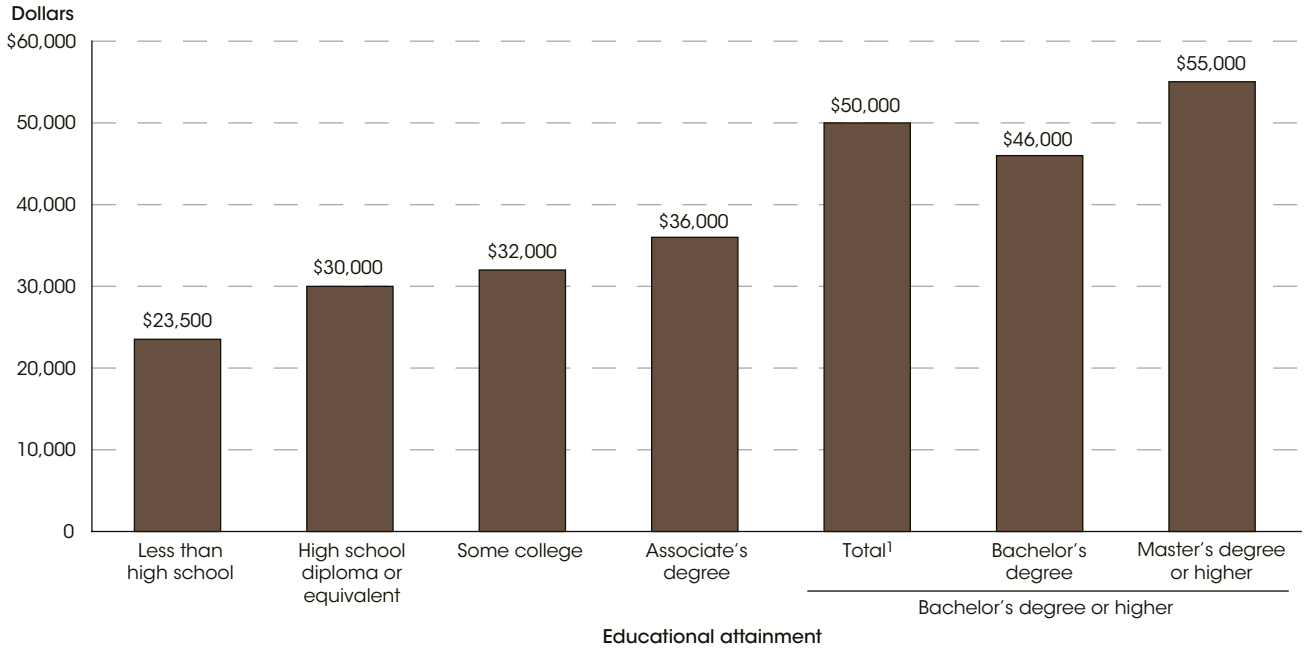
High school completers includes those who earned a high school diploma or equivalent (e.g., a General Educational Development [GED] certificate). Earnings are presented in 2008 constant dollars by means of the Consumer Price Index (CPI) to eliminate inflationary factors and allow for direct comparison across years. For more information on the CPI, see *supplemental note 10. Full-year worker* refers to those who were employed 50 or more weeks during the previous year; *full-time worker* refers to those who were usually employed 35 or more hours per week. The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. In 1994, the survey instrument for the CPS was changed and weights were adjusted. For more information on changes to the CPS, see *supplemental note 2.* For more information on race/ethnicity, see *supplemental note 1.*

Figure 17-1. Median annual earnings of full-time, full-year wage and salary workers ages 25–34, by educational attainment: 1995–2008



NOTE: Earnings are presented in 2008 constant dollars by means of the Consumer Price Index (CPI) to eliminate inflationary factors and allow for direct comparison across years. For more information on the CPI, see *supplemental note 10. Full-year worker* refers to those who were employed 50 or more weeks during the previous year; *full-time worker* refers to those who were usually employed 35 or more hours per week. For more information on the Current Population Survey (CPS), see *supplemental note 2.*
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), March and Annual Social and Economic Supplement, 1996–2009.

Figure 17-2. Median annual earnings of full-time, full-year wage and salary workers ages 25–34, by educational attainment: 2008



[1] Total represents the median earnings of those with a bachelor's degree or higher.
NOTE: *Full-year worker* refers to those who were employed 50 or more weeks during the previous year; *full-time worker* refers to those who were usually employed 35 or more hours per week. For more information on the Current Population Survey (CPS), see *supplemental note 2.*
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), March and Annual Social and Economic SWupplement, 2009.