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## 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. There are 25 indicators in this section: 6, prepared for this year's volume, appear on the following pages, and all 25, including indicators from previous years, appear on the Web (see the List of Indicators on *The Condition* of Education website in the Contents section for a full list of the indicators). 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.

The indicators in the first subsection (found on the website) trace the gains in achievement and 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 student performance, either by age or grade, in elementary and secondary school. 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. Academic

outcomes are basically measured in three ways: as the change in students' average performance over time, as the change in the percentage of students achieving specified levels of achievement, and through international comparisons of national averages. Indicators in this volume show the reading and mathematics achievement of students in grades 4, 8, and 12. Five other indicators that appear on the Web highlight achievement in writing, economics, science, U.S. history, and geography. Also, several indicators in this subsection examine the reading, mathematics, and science skills of students at the international level. 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, adult literacy measures are highlighted in the third subsection, while the fourth subsection focuses on social outcomes of education. Knowledge of these outcomes, which are measured here through levels of adult literacy, adult reading habits, and the health status of individuals, help contribute to an educated, capable, and engaged citizenry.

The fifth subsection looks specifically at the economic outcomes of education. Economic outcomes include the likelihood of being employed, shown in an indicator on the Web, and the salaries paid to individuals with varying levels of educational attainment, shown in an indicator in this volume.

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 and Achievement Gaps

National average reading scores of 4th- and 8th-graders were higher in 2007 than in 1992, by 4 and 3 points, respectively. However, the reading score of 12th-graders was 6 points lower in 2005 than in 1992.

The percentage of 4th-graders performing at or above the Basic achievement level on the National Assessment of Educational Progress (NAEP) Reading Assessment was higher in 2007 than in 1992 (67 vs. 62 percent), as was the percentage performing at or above the Proficient achievement level (33 vs. 29 percent) (see table A-12-1). Percentages of 4th-graders at both of these achievement levels were also higher in 2007 than in 2005. Although the percentage of 8th-graders performing at or above Basic was higher in 2007 than in 1992 (74 vs. 69 percent), there was no measurable difference in the percentage of 8th-graders performing at or above *Proficient* in these 2 years. The percentage of 8th-graders performing at or above Basic was higher in 2007 than in 2005, but the percentages performing at or above *Proficient* in these 2 years were not measurably different. The percentage of 12th-graders performing at or above *Basic* was lower in 2005 than in 1992 (73 vs. 80 percent), as was the percentage of 12th-graders performing at or above Proficient (35 vs. 40 percent).

The national average reading scale score of 4th-graders was higher in 2007 than in 1992, by 4 points (see table A-12-2). The 2007 reading score was also higher than the scores in any of the previous assessment years. Average scores were higher in 2007 than in 1992 for White, Black, Hispanic, and Asian/Pacific Islander 4th-graders (ranging from 6 to 16 points). Although the reading achievement gap between White and Black 4th-graders was smaller in 2007 than in all previous assessments, the gap between White and Hispanic 4th-graders was not measurably different in 2007 than in 2005 or 1992. In 2007, at the 4th-grade level, Blacks scored, on average, 27 points lower than Whites, and Hispanics scored, on average, 26 points lower than Whites.

For 8th-graders, the national average reading scores were higher in 2007 than in 1992, by 3 points. Like the pattern for 4th-graders, the 8th-grade score in 2007 was higher than that in 2005. Average scores were higher in 2007 than in 1992 for White, Black, and Hispanic 8th-graders (ranging from 5 to 7 points). There were no measurable changes in the 8th-grade White-Black or White-Hispanic reading achievement gaps in 2007 compared with 1992 or 2005. In 2007, Blacks scored, on average, 27 points lower on the 8th-grade reading assessment than Whites, and Hispanics scored, on average, 25 points lower than Whites.

Students in grade 12 scored 6 points lower on the reading assessment in 2005 (the last year 12th-graders were assessed in reading) than in 1992, but their 2005 score was not measurably different from their 2002 score. Average scores were lower in 2005 than in 1992 for 12th-grade White, Black, and Hispanic students (ranging from 5 to 7 points). There were no measurable changes in the gaps between White students and their Black or Hispanic counterparts from 2005 to 1992 or 2002.

NAEP results also permit state-level comparisons of the reading abilities of 4th- and 8th-graders in public schools. The percentage of 4th-grade students performing at or above Basic was higher in 2007 than in 1992 in 24 of the 42 states that participated in both assessment years (see table A-12-3). Of the 37 states that participated in the grade 8 assessment in both 1998 (the earliest state assessment at that grade) and 2007, the percentage of students performing at or above *Basic* was higher in 2007 than in 1998 in 5 states and lower in 2007 than in 1998 in 7 states.



For more information: *Tables A-12-1 through A-12-3*; Indicators 13 and 14

#### **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. The 2007

NAEP Reading Assessment was not administered to 12th-grade students. State samples were not collected for grade 12; therefore, state results for grade 12 are not available. For more information on NAEP, see supplemental note 4. For more information on race/ ethnicity, see supplemental note 1.

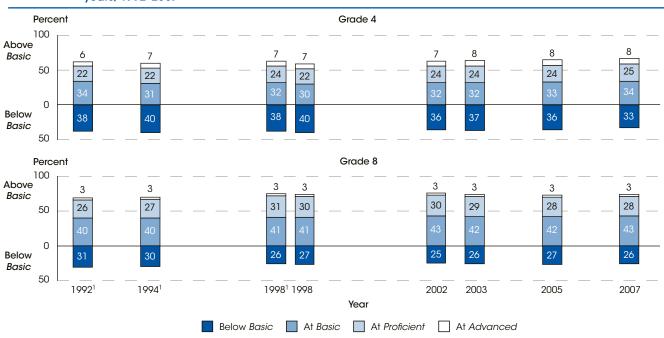


Figure 12-1. Percentage distribution of 4th- and 8th-grade students across NAEP reading achievement levels: Selected years, 1992-2007

NOTE: The National Assessment of Educational Progress (NAEP) 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. For more information on NAEP, see supplemental note 4. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1992–2007 Reading Assessments, NAEP Data Explorer.

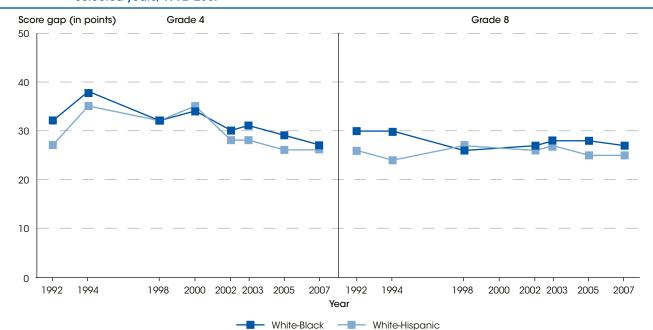


Figure 12-2. Differences in White-Black and White-Hispanic 4th- and 8th-grade average reading scale scores: Selected years, 1992–2007

NOTE: The National Assessment of Educational Progress (NAEP) reading scale ranges from 0 to 500. Student assessments are not designed to permit comparisons across subjects or grades. Race categories exclude persons of Hispanic ethnicity. The score gap is determined by subtracting the average Black or Hispanic score, respectively, from the average White score. For more information on 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), selected years, 1992–2007 Reading Assessments, NAEP Data Explorer.

<sup>&</sup>lt;sup>1</sup> Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

# **Mathematics Performance and Achievement Gaps**

#### In 2007, students in grades 4 and 8 showed improvements from all previous assessments at all mathematics achievement levels.

The percentages of 4th- and 8th-grade students performing at or above the Basic, at or above the Proficient, and at the Advanced achievement levels were higher on the 2007 National Assessment of Educational Progress (NAEP) Mathematics Assessment than on all previous mathematics assessments (see table A-13-1). For example, the percentage of 4th-grade students at or above Proficient increased by 3 percentage points from 2005 to 2007 and tripled from 1990 to 2007 (13 vs. 39 percent). For 8th-grade students, the percentage scoring at or above Proficient increased by 2 percentage points from 2005 to 2007 and doubled from 1990 to 2007 (15 vs. 32 percent).

From 1990 to 2007, average NAEP mathematics scale scores increased 27 points for 4th-graders and 19 points for 8th-graders. Increases in scores were seen for both males and females and for most racial/ethnic groups. Both male and female 4th- and 8th-graders scored higher in 2007 than in any of the previous assessments (see table A-13-2). In 2007, at each grade, males outscored females by 2 points; these score gaps were not measurably different from the gaps in either 2005 or 1990.

For grade 4, average mathematics scores in 2007 for White, Black, Hispanic, and Asian/Pacific Islander students were higher than the scores in any of the previous assessments since 1990. Although the score for American Indian/Alaska Native 4th-grade students increased over time, it did not differ measurably between 2005 and 2007. In mathematics, the achievement gap between White and Black 4th-graders was smaller in 2007 than in 1990 (26 vs. 32 points), but there was no measurable change over the last 2 years (between 2005 and 2007). The gap between White and Hispanic 4th-graders increased in the 1990s before decreasing in

the first half of the 2000s, but the gap in 2007 (21 points) was not measurably different from that in 1990.

For grade 8, average mathematics scores in 2007 for White, Black, and Hispanic students were higher than in any of the previous assessments. The average score for 8th-grade Asian/Pacific Islander students in 2007 was higher than their score in 1990, but not measurably different from their score in 2005. No measurable differences were detected in the scores for American Indian/Alaska Native 8th-graders between 1990 and 2007. The White-Black 8th-grade mathematics gap was smaller in 2007 than in 2005, but there was no measurable change in the White-Hispanic gap between these years. In 2007, among 8th-graders, the White-Black mathematics gap was 32 points, and the White-Hispanic gap was 26 points.

NAEP results also permit state-level comparisons of the mathematics abilities of 4th- and 8th-graders in public schools. Forty-one states and the District of Columbia participated in both the 1992 and 2007 4th-grade assessments, and 37 states and the District of Columbia participated in both the 1990 and 2007 8th-grade assessments. For each of these participating states (including the District of Columbia) and at each grade level, there was an increase in the average score as well as in the percentage of students scoring at or above the Basic and at or above the Proficient achievement levels (see table A-13-3).



For more information: *Tables A-13-1 through A-13-3*; Indicators 12 and 14

#### **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. For more information on NAEP, see supplemental note 4. For more information on race/ethnicity, see supplemental note 1.

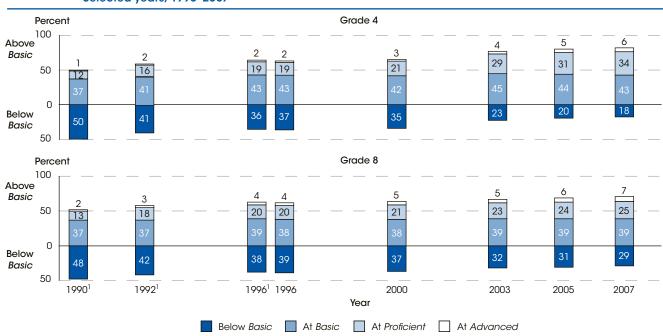


Figure 13-1. Percentage distribution of 4th- and 8th-grade students across NAEP mathematics achievement levels: Selected years, 1990–2007

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. For more information on NAEP, see *supplemental note 4*. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), selected years, 1990–2007 Mathematics Assessments, NAEP Data Explorer.

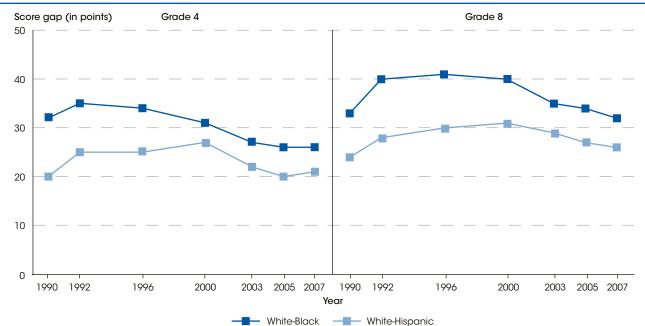


Figure 13-2. Differences in White-Black and White-Hispanic 4th- and 8th-grade average mathematics scale scores: Selected years, 1990–2007

NOTE: National Assessment of Educational Progress (NAEP) mathematics scores range from 0 to 500. Student assessments are not designed to permit comparisons across subjects or grades. The score gap is determined by subtracting the average Black or Hispanic score, respectively, from the average White score. For more information on NAEP, see *supplemental note 4*. Race categories exclude persons of Hispanic ethnicity. 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), selected years, 1990–2007 Mathematics Assessments, NAEP Data Explorer.

<sup>&</sup>lt;sup>1</sup> Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

# 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 over the same period.

The long-term trend National Assessment of Educational Progress (NAEP) has provided information on the reading and mathematics achievement of 9-, 13-, and 17-year-olds in the United States every 2 to 5 years since 1971 for reading and 1973 for mathematics. Since 1990, reading and mathematics have been administered in the same years. These results may differ from the main NAEP results presented in indicators 12 and 13 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. Both scores are shown for 2004 with the results for all assessments prior to 2004 labeled as the original assessment. The results for the modified 2004 and 2008 assessments were 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-14-1 and A-14-2). 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-yearolds 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 Blacks 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 to 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-14-1 and A-14-2; Indicators 12 and 13

#### **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.

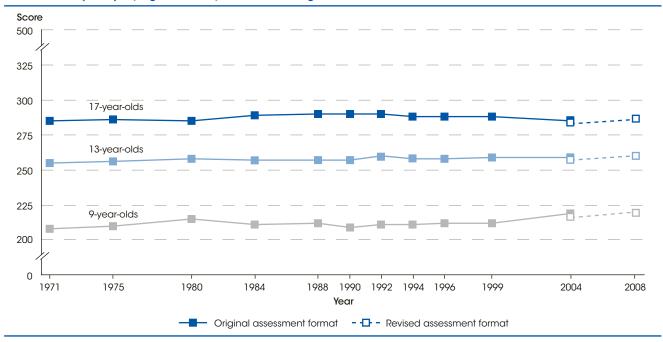


Figure 14-1. Average reading scale scores on the long-term trend National Assessment of Educational Progress (NAEP), by age: Various years, 1971 through 2008

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.

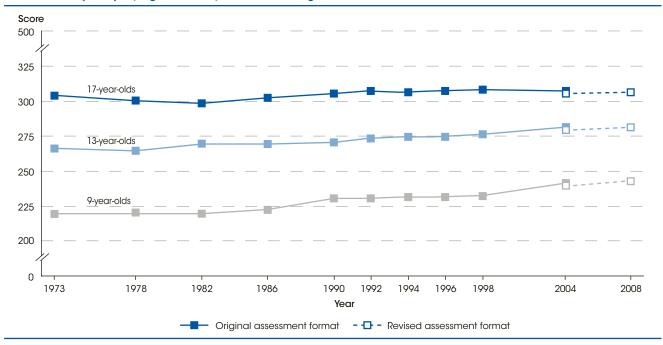


Figure 14-2. Average mathematics scale scores on the long-term trend National Assessment of Educational Progress (NAEP), by age: Various years, 1973 through 2008

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.

# International Trends in Mathematics Performance

In 2007, U.S. 4th-graders scored higher in mathematics than their peers in 23 countries and lower than those in 8 countries. U.S. 8th-graders scored higher than their peers in 37 countries and lower than those in 5 countries. Compared with 1995, U.S. 4th- and 8th-graders improved in mathematics in 2007.

Conducted in 2007, the Trends in International Mathematics and Science Study (TIMSS) assessed students' mathematics performance at grade 4 in 36 countries and at grade 8 in 48 countries. The assessment is curriculum based and measures what students have actually learned against the subject matter that is expected to be taught in the participating countries by the end of grades 4 and 8.

At grades 4 and 8, U.S. students scored above the TIMSS mathematics scale average in 2007. U.S. 4th-graders scored higher, on average, than their counterparts in 23 countries and lower than those in 8 countries. Average scores in the other 4 countries were not measurably different from the U.S. average. At grade 4, the 8 countries with higher average scores than the United States were Hong Kong Special Administrative Region (SAR), Singapore, Chinese Taipei, Japan, Kazakhstan, the Russian Federation, England, and Latvia. U.S. students scored higher than the TIMSS scale average on all 3 mathematics content domains measured at grade 4: number, geometric shapes and measures, and data display (see table A-15-1).

At grade 8, the average U.S. mathematics score was higher than those of students in 37 countries in 2007 and below the average scores of students in 5 countries. The 5 countries with higher average scores than the United States were all in Asia: Chinese Taipei, Republic of Korea, Singapore, Hong Kong SAR, and Japan. U.S. students scored higher than the TIMSS scale average on all 4 mathematics content domains measured at grade 8: number, algebra, geometry, and data and chance (see table A-15-2).

To examine the mathematics performance of each participating country's highest and lowest performing students, cutpoint scores were calculated for students performing at or above the 90th percentile (that is, the top 10 percent of students) and those performing at or below the 10th percentile (the bottom 10 percent of students)

based on the distribution of scores within each country. In 2007, the score defining the highest performing U.S. 4th-graders was higher than the 90th percentile scores for 4th-graders in 23 countries and lower than the scores in 7 countries (see table A-15-1). The score defining the lowest performing U.S. 4th-graders was higher than the 10th percentile scores in 23 countries and lower than those in 6 countries

At grade 8, the U.S. score at the 90th percentile in mathematics was higher than the corresponding scores in 34 countries and lower than those in 6 countries in 2007 (see table A-15-2). The U.S. score at the 10th percentile was higher than those in 34 countries and lower than those in 4 countries.

The United States was 1 of the 16 countries at grade 4 and 1 of the 20 countries at grade 8 that participated in both the first TIMSS mathematics assessment in 1995 and the most recent one in 2007. At both grades 4 and 8, U.S. students showed improvement in mathematics in 2007 compared with 1995 (see tables A-15-3 and A-15-4). The United States was among the 8 countries at grade 4 and 6 countries at grade 8 to show improvement in mathematics over this period.

Among U.S. 4th-graders, there was no measurable change in the mathematics score at the 90th percentile in 2007 compared with 1995 (see table A-15-5). However, the 90th percentile score was higher in 2007 than in 2003. The score at the 10th percentile was higher in 2007 than in either 1995 or 2003. Among U.S. 8th-graders, the 90th percentile score was higher in 2007 than in 1995. The 10th percentile score was higher in 2007 than in 1995 or 1999.



For more information: Tables A-15-1 through A-15-5; Indicators 16 and 29

Glossary: International Target Population, National Target Population
NCES 2009-001

#### **Technical Notes**

The total number of countries reported here differs from the total number reported in the TIMSS reports. In addition to the 36 countries at grade 4 and 48 countries at grade 8, some 8 other educational jurisdictions, or "benchmarking" entities, 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.

The TIMSS scale average was established with a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive assessments have scaled the achievement data so that scores are equivalent from assessment to assessment. That is, 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.

Table 15-1. Average mathematics scale scores of 4th-grade students, by country: 2007

Average score relative to					'	
the United States		Country and score				
Higher	Hong Kong SAR <sup>1</sup> Singapore Chinese Taipei	607 599 576	Japan Kazakhstan² Russian Federation	568 549 544	England Latvia <sup>2</sup>	541 537
Not measurably different	Netherlands <sup>3</sup> Lithuania <sup>2</sup>	535 530	<b>United States<sup>4,5</sup></b> Germany	<b>529</b> 525	Denmark <sup>4</sup>	523
Lower	Australia Hungary Italy Austria Sweden Slovenia Armenia TIMSS scale average	516 510 507 505 503 502 500 500	Slovak Republic Scotland <sup>4</sup> New Zealand Czech Republic Norway Ukraine Georgia <sup>2</sup> Iran, Islamic Republic of	496 494 492 486 473 469 438 402	Algeria Colombia Morocco El Salvador Tunisia Kuwait <sup>6</sup> Qatar Yemen	378 355 341 330 327 316 296 224

<sup>&</sup>lt;sup>1</sup> Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

NOTE: Countries are ordered by 2007 average score. The Trends in International Mathematics and Science Study (TIMSS) scale average was established with a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive TIMSS assessments have scaled achievement data so that scores are equivalent from assessment to assessment. That is, a score of 500 in grade 4 mathematics in 2007 is equivalent to a score of 500 in grade 4 mathematics in 2003 and 1995. For more information on the TIMSS, see supplemental note 5.

SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2008). Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context (NCES 2009-001), table 3, data from International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Table 15-2. Average mathematics scale scores of 8th-grade students, by country: 2007

Average score relative to the United States	Country and score					
Higher	Chinese Taipei Korea, Republic of	598 597	Singapore Hong Kong SAR <sup>1,2</sup>	593 572	Japan	570
Not measurably different	Hungary England <sup>2</sup>	517 513	Russian Federation <b>United States<sup>2,3</sup></b>	512 <b>508</b>	Lithuania <sup>4</sup> Czech Republic	506 504
Lower	Slovenia TIMSS scale average Armenia Australia Sweden Malta Scotland² Serbia <sup>4,3</sup> Italy Malaysia Norway Cyprus Bulgaria	501 500 499 496 491 488 487 486 480 474 469 465 464	Israel <sup>5</sup> Ukraine Romania Bosnia and Herzegovina Lebanon Thailand Turkey Jordan Tunisia Georgia <sup>4</sup> Iran, Islamic Republic of Bahrain Indonesia	463 462 461 456 449 441 432 427 420 410 403 398 397	Syrian Arab Republic Egypt Algeria Colombia Oman Palestinian National Authority Botswana Kuwait <sup>6</sup> El Salvador Saudi Arabia Ghana Qatar	395 391 387 380 372 367 364 354 340 329 309 307

<sup>&</sup>lt;sup>1</sup> Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

NOTE: Countries are ordered by 2007 average score. The Trends in International Mathematics and Science Study (TIMSS) scale average was established with a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive TIMSS assessments have scaled achievement data so that scores are equivalent from assessment to assessment. That is, 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 the TIMSS, see supplemental note 5.

SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2008). Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context (NCES 2009-001), table 3, data from International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

<sup>&</sup>lt;sup>2</sup> National Target Population did not include all of the International Target Population.

<sup>&</sup>lt;sup>3</sup> Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

 <sup>&</sup>lt;sup>4</sup> Met guidelines for sample participation rates only after substitute schools were included.
 <sup>5</sup> National Defined Population covered 90 to 95 percent of National Target Population.

<sup>6</sup> Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

<sup>&</sup>lt;sup>2</sup> Met guidelines for sample participation rates only after substitute schools were included.

<sup>&</sup>lt;sup>3</sup> National Defined Population covered 90 to 95 percent of National Target Population.

<sup>&</sup>lt;sup>4</sup> National Target Population did not include all of the International Target Population.

<sup>&</sup>lt;sup>5</sup> National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

<sup>6</sup> Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

# **International Trends in Science Performance**

The U.S. 4th-graders' 2007 science score was higher than scores in 25 countries and lower than in 4 countries. The U.S. 8th-graders' science score was higher than scores in 35 countries and lower than in 9 countries. U.S. students' 2007 science scores did not measurably differ from 1995 scores.

The Trends in International Mathematics and Science Study (TIMSS), conducted in 2007, assessed students' science performance at grade 4 in 36 countries and at grade 8 in 48 countries. The assessment is curriculum based and measures what students have learned against the subject matter that is expected to be taught in participating countries by the end of grades 4 and 8.

In 2007, U.S. 4th- and 8th-grade students scored above the TIMSS science scale average. U.S. 4th-graders scored higher, on average, than their peers in 25 of the 35 other countries that participated at grade 4 and lower than those in 4 of the other countries. Average scores in the remaining 6 countries were not measurably different from the U.S. average. The four countries with higher average scores than the United States were Singapore, Chinese Taipei, Hong Kong Special Administrative Region (SAR), and Japan. U.S. students scored higher than the TIMSS scale average on all three science content domains measured at grade 4: life science, physical science, and Earth science (see table A-16-1).

The average U.S. 8th-grade science score was higher than the scores of students in 35 of the 47 other countries that participated at grade 8 in 2007, lower than the scores of students in 9 of the other countries, and not measurably different from the scores of students in the remaining 3 countries. The nine countries with higher average scores than the United States were Singapore, Chinese Taipei, Japan, Republic of Korea, England, Hungary, the Czech Republic, Slovenia, and the Russian Federation. On the four science content domains measured at grade 8, U.S. students scored above the TIMSS scale average in biology, chemistry, and Earth science, but their scores were not measurably different from the average in physics (see table A-16-2).

Examination of the science performance of each participating country's higher and lower performing students shows that, in 2007, the score defining the highest performing U.S. 4th-graders (those performing at or above the 90th percentile) was higher than the 90th percentile scores for 4th-graders in 27 countries and lower than the scores in 2 countries (table A-16-1). The score defining the lowest performing U.S. 4th-graders in science (those performing at or below the 10th percentile) was higher than the 10th percentile scores for 4th-graders in 17 countries and lower than the scores in 7 countries.

In 2007, the U.S. 8th-grade science score at the 90th percentile was higher than the corresponding scores in 34 countries and lower than the scores in 6 countries (see table A-16-2). At the other end of the scale, the U.S. 8th-grade science score at the 10th percentile was higher than the scores in 34 countries and lower than the scores in 8 countries.

The United States was 1 of 16 countries at grade 4 and 1 of 19 at grade 8 that participated in both the first TIMSS science assessment in 1995 and the most recent one in 2007. The average science scores in 2007 for both U.S. 4th- and 8th-grade students were not measurably different from those in 1995 (see tables A-16-3 and A-16-4).

Among U.S. 4th-graders, the science score at the 90th percentile was lower in 2007 than in 1995 (see table A-16-5). Though the U.S. 4th-grade 10th percentile science score appears to have improved, there was no measurable change in the score between 1995 and 2007 or between 2003 and 2007. The U.S. 8th-grade 90th percentile science scores in 1995 and 2007 showed no measurable differences, nor did the scores in 2003 and 2007. In 2007, the 90th percentile score was lower than in 1999. The U.S. 8th-grade 10th percentile score was higher in 2007 than in both 1995 and 1999.



For more information: *Tables A-16-1 through A-16-5*; Indicators 15 and 29

Glossary: International Target Population, National Target Population NCES 2009-001

#### **Technical Notes**

The TIMSS scale average was established with a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive assessments have scaled the achievement data so that scores are equivalent from assessment to assessment. That is, a score of 500 in grade 8 science in 2007 is equivalent to a score of 500 in grade 8 science in 2003, 1999, and 1995. The total number of countries reported here differs from the total number reported in the

TIMSS reports. In addition to the 36 countries at grade 4 and 48 countries at grade 8, eight other educational jurisdictions, or "benchmarking" entities, 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. For more information on TIMSS, see supplemental note 5.

Table 16-1. Average science scale scores of 4th-grade students, by country: 2007

Average score relative to						
the United States		Country and score				
Higher	Singapore Chinese Taipei	587 557	Hong Kong SAR <sup>1</sup> Japan	554 548		
Not measurably different	Russian Federation Latvia <sup>2</sup> England	546 542 542	United States <sup>3,4</sup> Hungary Italy	<b>539</b> 536 535	Kazakhstan²	533
Lower	Germany Australia Slovak Republic Austria Sweden Netherlands <sup>5</sup> Slovenia Denmark <sup>3</sup> Czech Republic	528 527 526 526 525 523 518 517 515	Lithuania <sup>2</sup> New Zealand Scotland <sup>3</sup> TIMSS scale average Armenia Norway Ukraine Iran, Islamic Republic of Georgia <sup>2</sup>	514 504 500 500 484 477 474 436 418	Colombia El Salvador Algeria Kuwait <sup>6</sup> Tunisia Morocco Qatar Yemen	400 390 354 348 318 297 294

<sup>&</sup>lt;sup>1</sup> Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

NOTE: Countries are ordered by 2007 average score. The Trends in International Mathematics and Science Study (TIMSS) scale average was established to have a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive TIMSS assessments have scaled achievement data so that scores are equivalent from assessment to assessment. That is, a score of 500 in grade 4 science in 2007 is equivalent to a score of 500 in grade 4 science in 2003 and 1995. For more information on TIMSS, see supplemental note 5

SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2008). Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context (NCES 2009-001), table 11, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Table 16-2. Average science scale scores of 8th-grade students, by country: 2007

Average score relative to the United States			Country and score	)		
Higher	Singapore Chinese Taipei Japan	567 561 554	Korea, Republic of England <sup>1</sup> Hungary	553 542 539	Czech Republic Slovenia Russian Federation	539 538 530
Not measurably different	Hong Kong SAR <sup>1,2</sup> <b>United States<sup>1,2</sup></b>	530 <b>520</b>	Lithuania⁴ Australia	519 515		
Lower	Sweden TIMSS scale average Scotland <sup>1</sup> Italy Armenia Norway	511 500 496 495 488 487	Bahrain Bosnia and Herzegovina Romania Iran, Islamic Republic of Malta Turkey	467 466 462 459 457 454	Colombia Lebanon Egypt Algeria Palestinian National Authority	417 414 408 408 404
	Ukraine Jordan Malaysia Thailand Serbia <sup>3,4</sup> Bulgaria <sup>5</sup> Israel <sup>5</sup>	485 482 471 471 470 470 468	Syrian Arab Republic Cyprus Tunisia Indonesia Oman Georgia <sup>4</sup> Kuwait <sup>6</sup>	452 452 445 427 423 421 418	Saudi Arabia El Salvador Botswana Qatar Ghana	403 387 355 319 303

<sup>&</sup>lt;sup>1</sup> Met guidelines for sample participation rates only after substitute schools were included.

 National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).
 Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.
 NOTE: Countries are ordered by 2007 average score. The Trends in International Mathematics and Science Study (TIMSS) scale average was established to have a mean of 500 and a standard deviation of 100, based on the average of all the countries that participated in 1995. Successive TIMSS assessments have scaled achievement data so that scores are equivalent from assessment to assessment. That is, a score of 500 in grade 8 science in 2007 is equivalent to a score of 500 in grade 8 science in 2003, 1999, and 1995. For more information on TIMSS, see supplemental note 5.

SOURCE: Gonzales, P., Williams, T., Jocelyn, L., Roey, S., Kastberg, D., and Brenwald, S. (2008). Highlights From TIMSS 2007: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context (NCES 2009-001), table 11, data from the International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

<sup>&</sup>lt;sup>2</sup> National Target Population does not include all of the International Target Population.

<sup>&</sup>lt;sup>3</sup> Met guidelines for sample participation rates only after substitute schools were included.

<sup>&</sup>lt;sup>4</sup> National Defined Population covers 90 to 95 percent of National Target Population.

<sup>&</sup>lt;sup>5</sup> Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

<sup>6</sup> Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.
 National Defined Population covers 90 to 95 percent of National Target Population.

<sup>&</sup>lt;sup>4</sup> National Target Population does not include all of the International Target Population.

# **Annual Earnings of Young Adults**

In 2007, young adults ages 25-34 with a bachelor's degree earned 29 percent more than young adults whose highest educational attainment was an associate's degree and 55 percent more than young adults whose highest educational attainment was a high school diploma or its equivalent.

For young adults ages 25–34 who worked full time throughout a 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 2007 (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 2007, the median earnings of young adults with a bachelor's degree were \$45,000, while the median earnings were \$35,000 for those with an associate's degree, \$29,000 for those with a high school diploma or its equivalent, and \$23,000 for those who did not earn a high school diploma or equivalent degree. In other words, in 2007, young adults with a bachelor's degree earned 29 percent more than young adults with an associate's degree, 55 percent more than young adult high school completers, and 96 percent more than those who did not earn a high school diploma. In 2007, the median earnings of young adults with a master's degree or higher were \$56,000, or 24 percent more than young adults with a bachelor's degree.

Comparing the median earnings 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 2007, in constant 2007 dollars. However, over the more recent, shorter period between 2000 and 2007, 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 \$15,000 more than those who did not

earn a high school diploma or its equivalent. In 2000, this difference increased to \$24,000 and was \$25,000 in 2007. In 1980, young adults with a bachelor's degree or higher earned \$10,000 more than high school completers. In 2000, this difference increased to \$18,000 and in 2007 it was \$19,000. However, between 2000 and 2007, there was a measurable increase 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 at least a master's degree earned \$7,000 more than their peers with a bachelor's degree. In 2007, this difference increased to \$11,000.

Earnings differences were also observed by sex and race/ ethnicity. In 2007, at every educational level, young adult males had higher median earnings than young adult females. For example, in 2007, young adult males with a bachelor's degree earned \$50,000 while their female counterparts earned \$40,000. In 2007, White young adults had higher median earnings than their Black and Hispanic counterparts at each educational level, with the exception of Hispanics with a master's degree or higher, which was not measurably different. Asian young adults with a bachelor's degree or master's degree or higher had higher earnings than their White and Black counterparts in 2007. In 2007, the average median earnings of those with at least a master's degree were \$65,000 for Asian young adults, \$58,000 for Hispanic young adults, \$55,000 for White young adults, and \$45,000 for Black young adults.



For more information: Table A-17-1; Indicator 23 Glossary: Constant dollars, Consumer Price Index, Educational attainment

#### 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 2007 constant dollars adjusted 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

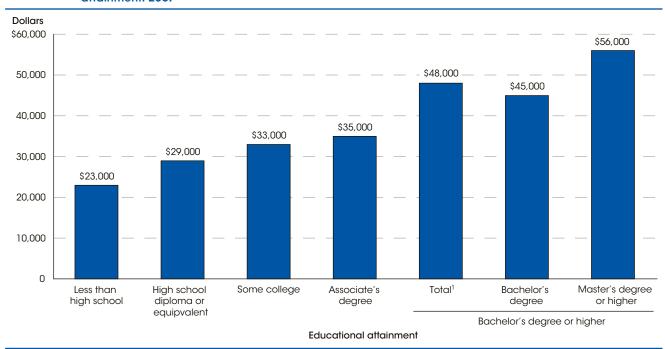
refers to those who were usually employed 35 or more hours per week. The Current Population Survey (CPS) questions used to obtain educational attainment were changed in 1992. In 1994, the survey instrument for the CPS was changed and weights were adjusted. For more information on changes to the CPS, see supplemental note 2. For more information on race/ethnicity, see supplemental note 1.

Dollars (in constant 2007 dollars) \$60,000 Master's degree or higher 50,000 Bachelor's degree 40,000 Associate's degree Some college 30,000 High school diploma or equivalent Less than high school 20,000 10,000 0 1999 1995 1996 1997 1998 2000 2001 2002 2003 2005 2006 2007 2004 Year

Figure 17-1. Median annual earnings of full-time, full-year wage and salary workers ages 25–34, by educational attainment: 1995–2007

NOTE: Earnings are presented in 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, 1996–2008.

Figure 17-2. Median annual earnings of full-time, full-year wage and salary workers ages 25–34, by educational attainment: 2007



<sup>&</sup>lt;sup>1</sup> 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 Supplement, 2008.



# Section 3 Student Effort and Educational Progress





# Section 3 Student Effort and Educational Progress

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### **Introduction**

The indicators in this section of *The Condition of* Education report on the progress students make through the education system. There are 24 indicators in this section: 7, prepared for this year's volume, appear on the following pages, and all 24, including indicators from previous volumes, appear on the Web (see the List of Indicators on *The Condition of Education* website in the Contents section for a full list of the indicators). Particular attention is paid in this section to how various subgroups in the population proceed through school and attain different levels of education as well as the factors that are associated with their progress along the way.

The indicators in the first two subsections (found on the website) focus on the educational aspirations and effort of students. These indicators include student measures of time spent on homework, preparedness for academic activities, postsecondary education expectations, and patterns of school attendance.

The third subsection traces the progress of students through elementary and secondary education to graduation from high school (or some alternate form of completion). Measures in this volume and on the website include the percentage of students who have ever been retained, the averaged freshman graduation rate, which estimates the on-time graduation rate for students in each state, the percentage of students with disabilities who leave high school with a regular diploma, and the status dropout rate by race/ethnicity and nativity. Dropping out of high school is measured here in two ways: by event rates (the percentage of students in an age range who leave school in a given year) and status rates (the percentage

of students in a given age range who are not enrolled in school and who have not completed high school).

The fourth subsection examines students' transition to college. One important measure featured in this volume is the percentage of students who enroll in college within 1 year of completing high school. Another indicator, found on the website, compares the rate of first-time enrollment in postsecondary education in the United States with the rates in other countries.

The fifth subsection concerns the percentage of students entering postsecondary education who earn a credential and the amount of time that they take to do so. This subsection includes indicators that feature relationships between the qualifications and characteristics of students who enter postsecondary education and their success in earning a credential.

An overall measure of the progress of the population through the education system is attainment, which is the highest level of education completed by a certain age. The sixth subsection includes indicators on completion. The Condition of Education annually examines levels of attainment for 25- through 29-year-olds. Other indicators in this subsection explore factors related to educational attainment and showcase the number of postsecondary degrees earned over time by gender and race/ethnicity.

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

# Grade Retention

In 2007, about 10 percent of students in kindergarten through grade 8 had ever been retained in a grade during their school career. A greater percentage of Black students than either White or Hispanic students had ever been retained in this year.

Students may be retained in a grade for reasons including a lack of the academic or social skills needed to advance to the next grade. This indicator examines grade retention rates as reported by parents in the National Household Education Surveys Program (NHES). The percentage of students in kindergarten (K) through grade 8 who had ever been retained during their school career has remained between 9 and 11 percent in all survey years between 1996 and 2007 (see table A-18-1). In 2007, about 10 percent of K-8 students had ever been retained.

In each survey year, a greater percentage of male students than female students had ever been retained in a grade. Among K-8 students in 2007, some 12 percent of male students had ever been retained, compared with 8 percent of female students. The percentages of male and female students who had ever been retained in 2007 were not measurably different from the percentages in 1996.

The percentage of K–8 students who had ever been retained differed by race/ethnicity and by region. For example, in 2007, a greater percentage of Black students than either White or Hispanic students had ever been retained. No measurable differences were found between 1996 and 2007 in either the White-Black or the White-Hispanic gap in the percentage of students who had ever been retained. In 2007, the percentages of students in the Northeast and the South who had ever been retained were larger than the percentage of students in the West. Additionally, a larger percentage of students in the South than in the Midwest had ever been retained. The percentages within each racial/ethnic and region category of students who had ever been retained did not measurably differ in 2007 from those in 1996.

In each survey year, the percentage of K–8 students who had ever been retained was greater among students

from poor families than among students from near-poor or nonpoor families. In 2007, for example, 23 percent of students from poor families had ever been retained, compared with 11 percent of students from near-poor families and 5 percent of students from nonpoor families. The percentage of students from poor families who had ever been retained was higher in 2007 (23 percent) than in 1996 (17 percent), while the percentage of students from nonpoor families who had ever been retained was lower in 2007 (5 percent) than in 1996 (7 percent).

The percentage of K–8 students who had ever been retained varied by their mothers' education level. Generally, in each survey year, the percentage of students who had ever been retained was greater among students whose mothers had completed lower levels of education, compared with students whose mothers had completed higher levels of education. In 2007, for example, 20 percent of students whose mothers had less than a high school diploma or its equivalent had ever been retained, compared with 3 percent each of students whose mothers' highest level of education was a bachelor's degree or graduate/professional school.

The percentages of K-8 students who had ever been retained did not measurably differ by school type, primary language spoken in the home, or country of birth in 2007. Between 1996 and 2007 (between 1999 and 2007 for country of birth), there were no measurable differences by these characteristics in the percentage of students who had ever been retained.



For more information: Table A-18-1 Glossary: Educational attainment, Private school, Public school

#### **Technical Notes -**

All data are based on parent reports. In 2007, administrative record data were also used to establish school type. Estimates exclude homeschooled students. Race categories exclude persons of Hispanic ethnicity. Estimates for mother's education exclude data for students who were reported to have no mother or female guardian.

For more information on race/ethnicity, parents' education, poverty thresholds, and a list of the states in each region, see *supplemental note 1*. For more information on National Household Education Surveys Program (NHES), see supplemental note 3.

Percent 25 ┚ 20 Poor 15 Near-poor 10 Total Nonpoor 5 0 1996 1999 2001 2003 2005 2007 Year

Figure 18-1. Percentage of students in kindergarten through grade 8 who had ever been retained in a grade during their school career, by poverty status: Selected years, 1996–2007

NOTE: All data are based on parent reports. For more information on poverty thresholds, please see *supplemental note 1*. For more information on the National Household Education Surveys Program (NHES), see *supplemental note 3*. SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Survey, Before- and After-School Programs Survey, and

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent Survey, Before- and After-School Programs Survey, and Parent and Family Involvement in Education Survey of the 1996–2007 NHES (Parent-NHES:1999; ASPA-NHES:2001 and 2005; and PFI-NHES:1996, 2003, and 2007).

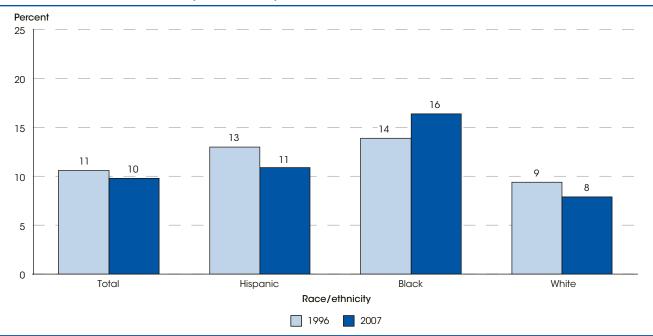


Figure 18-2. Percentage of students in kindergarten through grade 8 who had ever been retained in a grade during their school career, by race/ethnicity: 1996 and 2007

NOTE: All data are based on parent reports. Not all race/ethnicity categories are shown. Race categories excludes persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1*. For more information on the National Household Education Surveys Program (NHES), see *supplemental note 3*.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education Survey of the 1996

SOURCE: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education Survey of the 1996 and 2007 NHES (PFI-NHES:1996 and 2007).

# **Public High School Graduation Rates**

#### In 2005-06, about three-quarters of the 2002-03 freshman class graduated from high school with a regular diploma.

This indicator examines the percentage of public high school students who graduate on time with a regular diploma. To do so, it uses the averaged freshman graduation rate—an estimate of the percentage of an incoming freshman class that graduates 4 years later. For each year, the averaged freshman enrollment count is the sum of the number of 8th-graders 5 years earlier, the number of 9th-graders 4 years earlier (when current-year seniors were freshmen), and the number of 10th-graders 3 years earlier, divided by 3. The intent of this averaging is to account for the high rate of grade retention in the freshman year, which adds 9th-grade repeaters from the previous year to the number of students in the incoming freshman class each year.

Among public high school students in the class of 2005–06, the averaged freshman graduation rate was 73.2 percent in the 48 reporting states; that is, 2.6 million students graduated on time (see table A-19-1). Pennsylvania, South Carolina, and the District of Columbia did not report graduation counts in this year. Among the states that reported the 2005–06 graduation counts, Wisconsin had the highest graduation rate, at 87.5 percent. Thirteen other states had rates of 80 percent or more (ordered from high to low): Nebraska, Iowa, Minnesota, New Jersey, South Dakota, Vermont, North Dakota, Montana, New Hampshire, Missouri, Connecticut, Idaho, and Arkansas. Nevada had the lowest rate, at 55.8 percent. Nine other states had graduation rates below 70 percent (ordered from high to low): California, New York, New Mexico, Alaska, Alabama, Florida, Mississippi, Georgia, and Louisiana.

In order to compare rates across years, the averaged freshman graduation rates for the District of Columbia and the two states that did not report in 2005-06 were estimated. When these estimates are included with the reported 2005-06 data, the estimated rate for the nation is 73.4 percent. Using these estimates, the overall averaged freshman graduation rate among public school students increased from 71.7 percent for the graduating class of 2000-01 to 73.4 percent for the graduating class of 2005-06. However, between 2004-05 and 2005-06, the overall averaged freshman graduation rate decreased from 74.7 percent to 73.4 percent. Overall, between school years 2000-01 and 2005-06, there was an increase in the graduation rate in 40 states and the District of Columbia; 9 of these states (Arkansas, Delaware, Hawaii, Kentucky, Missouri, New York, North Carolina, South Dakota, and Tennessee) and the District of Columbia (2004–05 data) had an increase of greater than 5 percentage points. The graduation rate decreased in 10 states (Alaska, Arizona, California, Louisiana, Michigan, Nevada, New Jersey, North Dakota, Utah, and Virginia), with Nevada being the only state experiencing a decline of greater than 5 percentage points.



For more information: Table A-19-1; Indicators 20, 21,

Glossary: Public school

#### **Technical Notes**

Ungraded students were allocated to individual grades proportional to each state's enrollment in those grades. Graduates include only those who earned regular diplomas or diplomas for advanced academic achievement (e.g., honors diploma) as defined by the state or jurisdiction. Totals for reporting states include any of the 50 states and the District of Columbia that reported data for a given year. The 2003-04 national estimates

are based on imputed data for New York and Wisconsin. The 2005–06 national estimates are based on imputed data for the District of Columbia, Pennsylvania, and South Carolina. For more information on the Common Core of Data (CCD), see *supplemental note 3*; for more information on measures of student progress and persistence, see supplemental note 6.

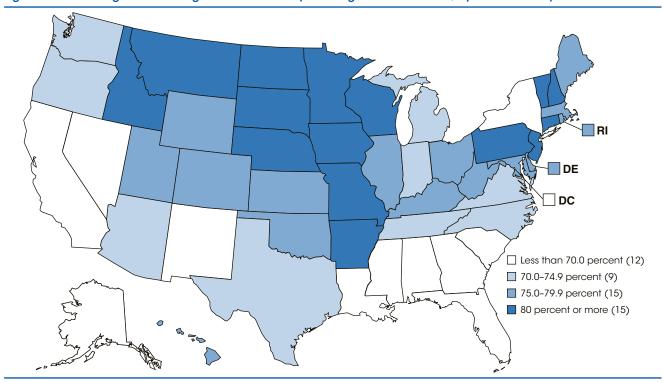


Figure 19-1. Averaged freshman graduation rate for public high school students, by state: School year 2005-06

NOTE: The rate is the number of graduates divided by the estimated count of freshmen 4 years earlier. The freshman enrollment count is the sum of the number of 8th-graders 5 years earlier, the number of 9th-graders 4 years earlier, and the number of 10th-graders 3 years earlier, divided by 3. Ungraded students were allocated to individual grades proportional to each state's enrollment in those grades. Estimates for the District of Columbia, Pennsylvania, and South Carolina are based on imputed data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "NCES Common Core of Data State Dropout and Completion Data File," school year 2005-06, version 1a; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001-02, Version 1c, 2002-03, Version 1b, 2003-04, Version 1b, and 2004-05, Version 1b.

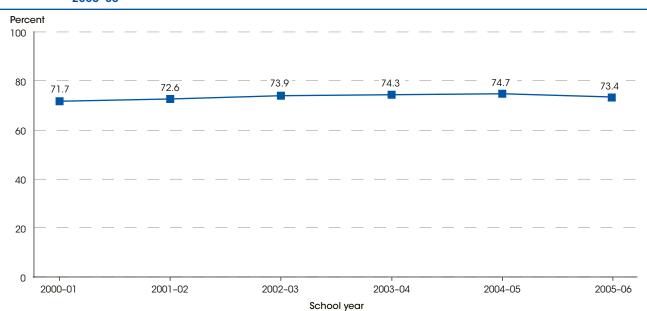


Figure 19-2. Averaged freshman graduation rate for public high school students: School years 2000–01 through 2005–06

NOTE: The rate is the number of graduates divided by the estimated count of freshmen 4 years earlier. The freshman enrollment count is the sum of the number of 8th-graders 5 years earlier, the number of 9th-graders 4 years earlier, and the number of 10th-graders 3 years earlier, divided by 3. Ungraded students were allocated to individual grades proportional to each state's enrollment in those grades. The 2003–04 national estimates are based on imputed data for New York and Wisconsin. The 2005–06 national estimates are based on imputed data for the District of Columbia, Pennsylvania, and South Carolina.

SOURĆE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "NCES Common Core of Data State Dropout and Completion Data File," school year 2005-06, version 1a; and "State Nonfiscal Survey of Public Elementary/Secondary Education," 2001-02, Version 1c, 2002-03, Version 1b, 2003-04, Version 1b, and 2004-05, Version 1b.

# **Status Dropout Rates**

In general, the status dropout rates for Whites, Blacks, and Hispanics declined between 1980 and 2007. In 2007, foreign-born Hispanics dropped out at a higher rate than native-born Hispanics, while the opposite trend by nativity held for Whites and Blacks.

The status dropout rate represents the percentage of 16through 24-year-olds who are not enrolled in school and have not earned a high school credential (either a diploma or equivalency credential, such as a General Educational Development [GED] certificate). In this indicator, status dropout rates are estimated using both the American Community Survey (ACS) and the Current Population Survey (CPS). The 2007 ACS allows for more detailed comparisons of status dropout rates by race/ethnicity, nativity, and sex than does the CPS. And unlike the CPS, the ACS includes persons living in military barracks in the United States and institutionalized persons. The CPS, however, provides several decades of historical trends on status dropouts that are not available from the ACS. For more information on these surveys, see supplemental notes 2 and 3.

In 2007, the status dropout rate of 16- through 24-yearolds was 9 percent (see table A-20-1). Differences in status dropout rates were found by sex and race/ethnicity. A higher percentage of males than females were status dropouts (11 vs. 8 percent). This pattern was evident across certain racial/ethnic groups, namely Whites, Blacks, and Hispanics.

The status dropout rate includes all 16- through 24-year-old dropouts, regardless of when they last attended school, as well as individuals without a high school credential who may never have attended school in the United States and who may never have earned a high school credential. Therefore, examining status dropout rates for the native-born population may provide a more accurate measure of those who have attended U.S. schools. In 2007, the status dropout rate was higher for native-born Hispanics than for native-born Asians, Pacific Islanders, and Whites. No measurable differences, however, were found between native-born Hispanics and native-born Blacks.

Overall, the status dropout rate for native-born 16through 24-year-olds was lower than that for their

foreign-born peers (8 vs. 21 percent). Native-born Hispanics, Asians, and Pacific Islanders had lower status dropout rates than their foreign-born counterparts, whereas native-born Whites and Blacks had higher status dropout rates than their foreign-born counterparts. Higher dropout rates among foreign-born Hispanics partially account for the high dropout rates for all Hispanic young adults. Among Hispanic 16- through 24-year-olds who were born outside the United States, the 2007 status dropout rate was 34 percent—higher than the rate for native-born Hispanics (11 percent).

The CPS allows for an examination of changes in status dropout rates over time. Based on the CPS, the status dropout rate declined from 14 percent in 1980 to 9 percent in 2007 (see table A-20-2). A decline was also seen between 2000 and 2007, the more recent years of this time span (from 11 percent to 9 percent).

Status dropout rates and changes in these rates over time differ by race/ethnicity. In general, the status dropout rates for Whites, Blacks, and Hispanics declined between 1980 and 2007. However, for each year during that period, the status dropout rate was lower for Whites and Blacks than for Hispanics. The rate for Asians/ Pacific Islanders was also lower than those for Hispanics and Blacks between 1989 and 2007. Although the gaps between the rates of Blacks and Whites and Hispanics and Whites have decreased, the decreases occurred in different time periods. The Black-White gap narrowed during the 1980s, with no measurable change between 1990 and 2007. In contrast, the Hispanic-White gap narrowed between 1990 and 2007, with no measurable change in the gap during the 1980s.



For more information: Tables A-20-1 and A-20-2; Indicators 19, 21, and 23 Glossary: GED certificate, High school equivalency certificate, Status dropout rate

#### **Technical Notes**

The United States refers to the 50 states and the District of Columbia. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see supplemental note 1. Estimates of the status dropout rate using the CPS include civilian, noninstitutionalized 16- through 24-year-olds. Young adults in the military or those who are incarcerated, for instance, are not included in this measure. However, the 2007 ACS includes noninstitutionalized and institutionalized group

quarters. Therefore, due to this and other methodological differences between the CPS and ACS, status dropout estimates from the two surveys are not directly comparable. For more information on these surveys, see supplemental notes 2 and 3. The status dropout rate reported in this indicator is one of a number of rates measuring high school dropout and completion behavior in the United States. For more information about the status dropout rate reported here, see supplemental note 6.

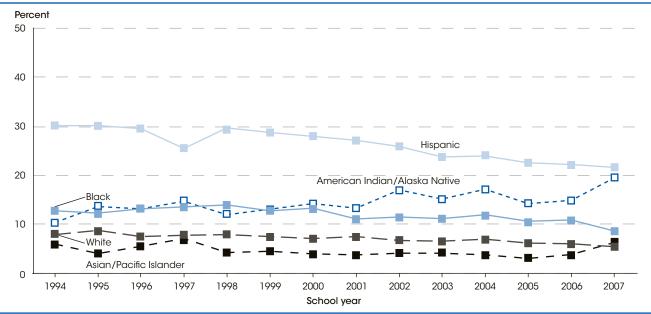
Percent 50 40 34 30 20 15 12 12 11 10 8 6 5 4 0 White Black Hispanic Asian Pacific American White Black Hispanic Asian Pacific American Indian/ Islander Indian/ Islander Alaska Native Alaska Native Foreign-born Native-born Race/ethnicity

Figure 20-1. Status dropout rates of 16- through 24-year-olds, by race/ethnicity and nativity: American Community Survey 2007

‡ Reporting standards not met (too few cases).

NOTÈ: The status dropout rate is the percentage of 16-through 24-year-olds who are not enrolled in high school and who have not earned a high school credential (either a diploma or equivalency credential such as a General Educational Development [GED] certificate). The status dropout rate includes all dropouts regardless of when they last attended school. This figure uses a different data source than figure 20-2, and therefore, estimates are not directly comparable to the 2007 estimates in figure 20-2. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity and the American Community Survey (ACS), see supplemental notes 1 and 3. For more information on measures of student persistence and progress, see supplemental note 6. SOURCE: U.S. Department of Commerce, Čensus Bureau, American Community Survey (ACS), 2007.

Figure 20-2. Status dropout rates of 16-through 24-year-olds in the civilian, noninstitutionalized population, by race/ ethnicity: October Current Population Survey 1994-2007



NOTE: The status dropout rate is the percentage of 16-through 24-year-olds who are not enrolled in high school and who have not earned a high school credential (either a diploma or equivalency credential such as a General Educational Development [GED] certificate). The status dropout rate includes all dropouts regardless of when they last attended school. Data for American Indians/Alaska Natives in 1999 have been suppressed due to unstable estimates. This figure uses a different data source than figure 20-1, and therefore, estimates are not directly comparable to the 2007 estimates in figure 20-1. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity and the Current Population Survey (CPS), see supplemental notes 1 and 2. For more information on measures of student persistence and progress, see *supplemental note 6*. SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 1994–2007.

# **Immediate Transition to College**

The rate of college enrollment immediately after high school completion increased from 49 percent in 1972 to 67 percent in 1997 and ranged between 62 and 69 percent through 2007. Gaps in immediate enrollment rates by family income, parents' education, and race/ethnicity have persisted over time.

The immediate college enrollment rate is defined as the percentage of high school completers of a given year who enroll in 2- or 4-year colleges in the fall immediately after completing high school. Between 1972 and 1980, the overall immediate enrollment rate was approximately 50 percent (see table A-21-1). The rate then increased, reaching 67 percent by 1997. The enrollment rate declined through 2001 to 62 percent before increasing again to 67 percent in 2007.

Differences in the immediate college enrollment rate by family income, parents' education, and race/ethnicity groups have persisted over time. For family income, despite an overall narrowing of the gaps, the immediate college enrollment rates of high school completers from low- and middle-income families trailed those of their peers from high-income families by more than 10 percentage points in each year between 1972 and 2007. In 2007, the enrollment rate gap between students from lowand high-income families was 23 percentage points, and the gap between students from middle- and high-income families was 15 percentage points.

Compared with high school completers whose parents had a bachelor's degree or higher, those whose parents had less education have had lower immediate college enrollment rates each year since 1992 (the earliest year for which comparable data on parents' education are available) (see table A-21-2). In 2007, the gap in the immediate college enrollment rate was 35 percentage points between

students whose parents had a bachelor's degree or higher and students whose parents completed high school or a lower level of education and 21 percentage points between students whose parents had a bachelor's degree or higher and students whose parents had some college.

Although the immediate college enrollment rates of White, Black, and Hispanic high school completers each increased between 1972 and 2007, enrollment rates for Black and Hispanic high school completers have nonetheless been lower than for their White peers almost every year since 1985 (see table A-21-3). In 2007, the immediate college enrollment rate was 70 percent for White high school completers, compared with 56 percent for Black high school completers and 61 percent for Hispanic high school completers.

From 1972 through 2007, the immediate college enrollment rate increased for both male and female high school completers, but the increase was greater for females than for males (see table A-21-4). Thus, while the enrollment rate was 7 percentage points lower for females than for males in 1972, in 2007 the rate was about 67 percent for both sexes.



For more information: *Tables A-21-1 through A-21-4*; Indicators 19, 20, and 23 Glossary: Educational attainment, High school

#### **Technical Notes**

Includes high school completers ages 16-24, who accounted for about 98 percent of all high school completers in a given year. Enrollment rates were calculated from the Current Population Survey (CPS) data. Before 1992, high school completer referred to those who had completed 12 years of schooling. Beginning in 1992, high school completer has referred to those who have received a high school diploma or equivalency certificate. Low income refers to the bottom 20 percent of all family incomes, *high income* refers to the top 20 percent of all family incomes, and *middle income* refers to the

60 percent in between. Race categories exclude persons of Hispanic ethnicity. Parents' education refers to the highest education level attained by either parent or, in the absence of both parents, the highest level attained by the householder or the householder's spouse. Due to short-term data fluctuations associated with small sample sizes for the Black, Hispanic, and low-income categories, moving average rates are also presented and discussed in the indicator text. For more information on the CPS, educational attainment, family income, race/ethnicity, and parents' education, see supplemental note 2.

Percent 100 High income 80 Middle income 60 Low income 40 20 1972 1975 1980 1985 1990 1995 2000 2005 2007 Year

Figure 21-1. Percentage of high school completers enrolled in 2- or 4-year colleges in the October immediately following high school completion, by family income: 1972–2007

NOTE: Includes high school completers ages 16–24, who accounted for about 98 percent of all high school completers in each year. Low income refers to the bottom 20 percent of all family incomes, high income refers to the top 20 percent of all family incomes, and middle income refers to the 60 percent in between. Family income data were not available for 1974. For more information on the Current Population Survey (CPS), educational attainment, and family income, see supplemental note 2.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 1972-2007.

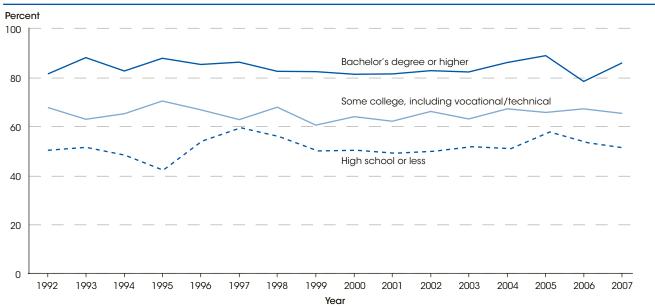


Figure 21-2. Percentage of high school completers enrolled in 2- or 4-year colleges in the October immediately following high school completion, by parents' education: 1992–2007

NOTE: Includes high school completers ages 16-24, who accounted for about 98 percent of all high school completers in each year. High school completers refers to those who have received a high school diploma or equivalency certificate. Parents' education refers to the highest education of the parent(s). If no parent resided with the student and the student was the householder or spouse of the householder, then the value of parents' education is set to missing. For more information on the Current Population Survey (CPS) and parents' education, see supplemental note 2.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 1992-2007.

<sup>&</sup>lt;sup>1</sup> Due to unreliable (or unstable) estimates associated with small sample sizes for the low-income category, moving average rates are presented. These rates were calculated as the average of the annual rates for the following 3 adjacent years: the year in question, the year immediately before it, and the year immediately after it. For 1972, 1973, 1975, and 2007, which do not have available data for 1 of the 3 adjacent years, the moving average rate was calculated as the average of the annual rates in the 2 available adjacent years.

# **Postsecondary Graduation Rates**

About 58 percent of first-time students seeking a bachelor's degree or its equivalent and attending a 4-year institution full time in 2000-01 completed a bachelor's degree or its equivalent at that institution within 6 years.

Approximately 58 percent of first-time students seeking a bachelor's degree or its equivalent and attending a 4-year institution full time in 2000-01 completed a bachelor's degree or its equivalent at that institution within 6 years (see table A-22-1). This graduation rate was calculated as the total number of completers within the specified time to degree attainment divided by the cohort of students who first enrolled in the 2000-01 academic year. This indicator focuses on the cohort of first-time, full-time students seeking a bachelor's degree or its equivalent who began attending a 4-year institution in 2000 and who completed a bachelor's degree or its equivalent 4, 5, and 6 years later.

The bachelor's degree completion rates of students seeking a bachelor's degree at 4-year institutions varied by the type of institution. For example, graduation rates were higher at private not-for-profit institutions than at public or private for-profit institutions. The 6-year graduation rate for private not-for-profit institutions was 65 percent, compared with 55 percent for public institutions and 33 percent for private for-profit institutions. The gap in the rates between private not-for-profit and public institutions was larger for 4-year and 5-year graduation rates than for the 6-year graduation rate (see table A-22-2). For example, the 4-year graduation rate at private not-for-profit institutions was 50 percent, compared with 29 percent at public institutions.

The bachelor's degree completion rates of students seeking a bachelor's degree at 4-year institutions also varied by student characteristics, including race/ethnicity and sex. Of all students seeking a bachelor's degree

or its equivalent and attending a 4-year institution in 2000-01, Asian/Pacific Islander students had the highest 6-year graduation rate, followed by White, Hispanic, Black, and American Indian/Alaska Native students (see table A-22-1). Approximately 67 percent of Asians/ Pacific Islanders, compared with 60 percent of Whites, 49 percent of Hispanics, 42 percent of Blacks, and 40 percent of American Indians/Alaska Natives graduated with a bachelor's degree or its equivalent within 6 years. This pattern held for Asians/Pacific Islanders, Whites, and Hispanics at institutions of each type of institutional control (public, private not-for-profit, and private for-profit). For each institution type, Blacks and American Indians/Alaska Natives had the lowest graduation rates of the five racial/ethnic groups.

In both public and private not-for-profit 4-year institutions, the 6-year graduation rates for females were higher than the rates for males. For public institutions, approximately 58 percent of females seeking a bachelor's degree or its equivalent graduated within 6 years, compared with 51 percent of their male counterparts; for private not-for-profit institutions, 67 percent of females graduated within 6 years, compared with 62 percent of males. At private for-profit institutions, however, the 6-year graduation rate was higher for males than females (36 vs. 29 percent).



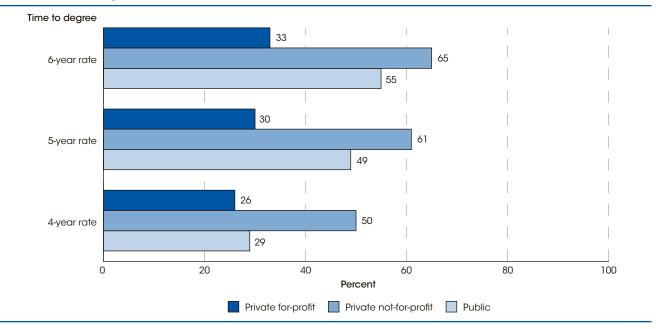
For more information: Tables A-22-1 and A-22-2 Glossary: Four-year postsecondary institution, Private institution, Public institution

#### **Technical Notes** -

The graduation rate was calculated in the manner required for disclosure and reporting purposes under the Student Right-To-Know Act as the total number of completers within the specified time to degree attainment divided by the revised cohort minus any allowable exclusions. For this indicator, the revised cohort is the spring 2007 estimate of the number of students entering the institution in 2000 as first-time, full-time undergraduates seeking a bachelor's or equivalent degree. Allowable exclusions include those students who had died or were totally and permanently disabled; those who had left school to serve in the armed forces; those who had left to serve with a foreign aid service of the federal government

such as the Peace Corps; and those who had left to serve on official church missions. For 4-year institutions, the cohort in this indicator consists of those students who enrolled for the first time in the 2000-01 academic year. The number of completers used in the calculation of the graduation rate for each time-to-degree designation is cumulative; for example, the 6-year graduation rate includes all students who graduated in 4 years and 5 years, as well as those who graduated in 6 years. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see supplemental note 1. For more information on the Integrated Postsecondary Education Data System (IPEDS), see supplemental note 3.

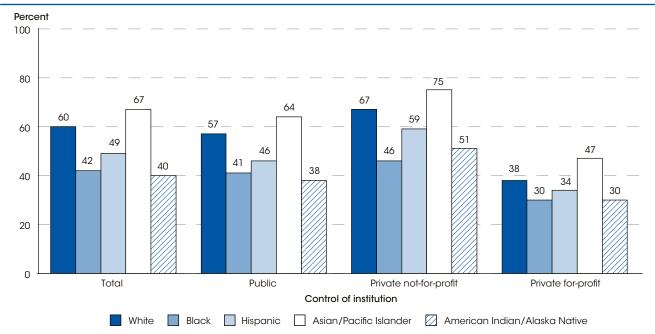
Figure 22-1. Percentage of students seeking a bachelor's or equivalent degree at 4-year Title IV institutions who completed a bachelor's or equivalent degree, by time to degree attainment and control of institution: Cohort year 2000



NOTE: The rate was calculated as the total number of completers within the specified time to degree attainment divided by the revised cohort minus any allowable exclusions. The revised cohort is the spring 2007 estimate of the number of students entering the institution in 2000 as firsttime, full-time undergraduates seeking a bachelor's or equivalent degree. For more information on the Integrated Postsecondary Education Data System (IPEDS), see supplemental note 3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2007, Graduation Rates component.

Figure 22-2. Percentage of students seeking a bachelor's or equivalent degree at 4-year Title IV institutions who completed a bachelor's or equivalent degree within 6 years, by race/ethnicity and control of institution: Cohort year 2000



NOTE: Race categories exclude persons of Hispanic ethnicity. Persons with unknown race/ethnicity are not shown. For more information on race/ ethnicity, see supplemental note 1. The rate was calculated as the total number of completers within the specified time to degree attainment divided by the revised cohort minus any allowable exclusions. The revised cohort is the spring 2007 estimate of the number of students entering the institution in 2000 as first-time, full-time undergraduates seeking a bachelor's or equivalent degree. For more information on the Integrated Postsecondary Education Data System (IPEDS), see supplemental note 3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2007, Graduation Rates component.

# **Educational Attainment**

In 2008, some 88 percent of 25- to 29-year-olds had received at least a high school diploma or equivalency certificate. During the period of 1971 to 2008, the gap in high school attainment between Blacks and Whites decreased from 23 to 6 percentage points.

Between 1971 and 2008, the educational attainment of 25- to 29-year-olds increased. In 2008, for example, 88 percent of these young adults had received at least a high school diploma or equivalency certificate, a 10 percentage point increase from 1971 (see table A-23-1). Although the high school completion rate increased 8 percentage points during the 1970s, it has remained between 85 and 88 percent since the late 1970s.

In 1971, a higher percentage of Whites than Blacks or Hispanics had completed high school (82 vs. 59 and 48 percent, respectively). The high school completion rate for Blacks increased between 1971 and 2008 from 59 to 88 percent, and the gap between Blacks and Whites decreased from 23 to 6 percentage points during this period. Between 1971 and 2008, the high school completion rate for Hispanics increased from 48 to 68 percent, and the gap between Hispanics and Whites decreased from 33 to 25 percentage points. In 1990, a higher percentage of Asians/Pacific Islanders had completed high school than Blacks and Hispanics (90 vs. 82 and 58 percent, respectively). Between 1990 and 2008, there were no measurable changes in the size of the gaps between Asians/Pacific Islanders and Blacks and Hispanics, respectively. In 2008, the high school completion rates for Blacks and Hispanics remained below those of Whites and Asians/Pacific Islanders (88 and 68 vs. 94 and 96 percent, respectively).

Between 1971 and 2000, the percentage of 25- to 29-year-olds who had completed a bachelor's degree or higher increased from 17 to 29 percent; however, the rate in 2008, at 31 percent, showed no measurable difference from the rate in 2000. Between 1971 and 2008, the percentage who had attained a bachelor's degree or higher increased from 19 to 37 percent for Whites, from 7 to 20 percent for Blacks, and from 5 to 12 percent for Hispanics. Between 1990 and 2008, the percentage of Asians/Pacific Islanders who had attained a bachelor's degree or higher increased from 42 to 58 percent, although most of this increase (11 percentage points) occurred between 1995 and 2000. Between 2000 and 2008, there was no measurable difference in the percentage of Asians/Pacific Islanders who had attained a bachelor's degree or higher. Between 1971 and 2008, the gap favoring Whites over Blacks widened from 12 to 17 percentage points, and the gap favoring Whites over Hispanics widened from 14 to 25 percentage points. Between 1990 and 2008, the gap favoring Asians/Pacific Islanders over Whites widened from 16 to 21 percentage points.

In 2008, some 7 percent of 25- to 29-year-olds had completed a master's degree. Between 1995 and 2008, the rate of master's degree attainment increased for Whites (from 5 to 8 percent), Blacks (from 2 to 4 percent), and Asians/Pacific Islanders (from 11 to 20 percent). The percentage of Whites who had attained a master's degree in 2008 was higher than the percentages of Blacks and Hispanics who had done so, and the percentage of Asians/Pacific Islanders who had attained a master's degree was higher than those of their peers of all other races/ethnicities.

Gender gaps in educational attainment switched from favoring males in 1971 to favoring females in 2008. For example, between 1971 and 2008, the percentage completing at least high school shifted from favoring males by 3 percentage points to favoring females by 4 percentage points, and the percentage completing a bachelor's degree or higher shifted from favoring males by 7 percentage points to favoring females by 8 percentage points.



For more information: Table A-23-1; Indicators 19–21 Glossary: Educational attainment

#### Technical Notes

Estimates of educational attainment represent the percentage who achieved at least the cited credential. This indicator uses March Current Population Survey (CPS) data to estimate the percentage of civilian, noninstitutionalized people ages 25 through 29 who are out of high school. Prior to 1992, high school completers referred to those who completed 12 years of schooling, and some college meant completing 1 or more years of college; beginning in 1992, high school completers referred to those who received a high school diploma or

equivalency certificate, and some college meant completing any college at all. For more information on the CPS, see supplemental note 2. For more information on educational attainment of 25- to 29-year-olds, see *supplemental note* 6. Some estimates are revised from previous publications. Included in the totals but not shown separately are estimates for those from other racial/ethnic groups. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see supplemental note 1.

Percent 100 \_\_Asian/Pacific Islander 80 Total1 Black 60 Hispanic 40 20 0 1995 1975 1980 1985 1990 2000 2008 1971 2005 Year

Figure 23-1. Percentage of 25- to 29-year-olds who completed at least high school, by race/ethnicity: March 1971–2008

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

NOTE: Data for Asians/Pacific Islanders were only available from 1990. Prior to 1992, high school completers referred to those who completed 12 years of schooling; beginning in 1992, the term referred to those who received a high school diploma or equivalency certificate. For more information on educational attainment of 25- to 29-year-olds, see supplemental note 6. For more information on the Current Population Survey (CPS), see supplemental note 2. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see supplemental note 1.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), March Supplement, 1971-2008.

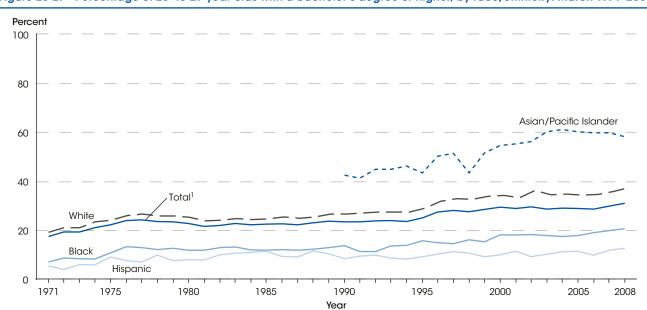


Figure 23-2. Percentage of 25- to 29-year-olds with a bachelor's degree or higher, by race/ethnicity: March 1971-2008

NOTE: Data for Asians/Pacific Islanders were only available from 1990. Data prior to 1992 were for completing 4 years of college; beginning in 1992, data were for earning a bachelor's degree. For more information on educational attainment of 25- to 29-year-olds, see *supplemental note 6*. For more information on the Current Population Survey (CPS), see *supplemental note 2*. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1*.

SOURCÉ: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), March Supplement, 1971-2008.

<sup>&</sup>lt;sup>1</sup> Included in the total but not shown separately are estimates for those from other racial/ethnic groups.

# **Degrees Earned**

Between 1996-97 and 2006-07, the total number of degrees earned by Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students grew at a faster rate than the number earned by White students for each type of degree.

Enrollment in degree-granting institutions increased between academic years 1996-97 and 2006-07, with total postsecondary enrollment increasing from 14.4 to 17.8 million students, a 24 percent increase (see indicators 10 and 11). This growth was accompanied by increases in the number of degrees earned: during this period, the number of associate's degrees earned increased by 27 percent, bachelor's degrees by 30 percent, master's degrees by 44 percent, first-professional degrees by 14 percent, and doctoral degrees by 32 percent (see table A-24-1).

The number of degrees earned increased for all racial/ ethnic groups for each type of degree, but at varying rates. (In this indicator, the term "other racial/ethnic groups" refers to the group which comprises Blacks, Hispanics, Asians/Pacific Islanders, and American Indians/Alaska Natives.) For example, between 1996–97 and 2006–07, the number of associate's degrees earned by students in other racial/ethnic groups grew at a faster rate than the number earned by White students (70 vs. 14 percent increase, see table A-24-2). As a result, the percentage of all associate's degrees awarded to students in other racial/ethnic groups increased from 23 to 31 percent. The number of associate's degrees awarded to Hispanic students almost doubled during this period. Between 1996–97 and 2006–07, the number of bachelor's degrees awarded to students in other racial/ethnic groups increased by 62 percent (from 233,100 to 378,300 degrees), while the number awarded to White students increased by 22 percent (from 900,800 to 1.1 million). Students in other racial/ethnic groups were awarded 25 percent of all bachelor's degrees in 2006-07, compared with 20 percent of the bachelor's degrees awarded 10 years earlier. Between 1996-97 and 2006-07, the number of bachelor's degrees awarded to Hispanics increased by 84 percent (from 62,500 to 114,900 degrees).

For both Black and Hispanic students, the number of master's degrees earned more than doubled between 1996–97 and 2006–07, contributing to the increase in the share of degrees earned by students in other racial/ethnic groups. In 2006–07, students in other racial/ethnic groups earned 23 percent of all master's degrees, compared with 15 percent in 1996–97. For first-professional degrees, the majority of the increase was due to the increase in awards to students in other racial/ethnic groups. The number

of first-professional degrees awarded to these students increased by 6,700 degrees, for a total of 23,500 degrees in 2006–07, while the number awarded to White students increased by 4,300, for a total of 64,500 degrees. The number of doctoral degrees awarded to Black students doubled between 1996-97 and 2006-07, contributing to the increase in the share of all doctoral degrees awarded to students in other racial/ethnic groups (from 13 to 16 percent). More than one-quarter of doctoral degrees were awarded to nonresident aliens in 2006-07.

For each type of degree, the number of degrees earned grew at a faster rate for females than for males between 1996-97 and 2006-07. In 1996-97, females earned 61 percent of associate's, 56 percent of bachelor's, and 57 percent of master's degrees (see table A-24-1). In 2006-07, the percentage of associate's and bachelor's degrees earned by females increased to 62 and 57 percent, respectively, and the percentage of master's degrees increased to 61 percent. Females have historically earned fewer first-professional and doctoral degrees than males—in 1996-97, for example, females earned 42 percent of firstprofessional degrees and 41 percent of doctoral degrees. In 2006-07, for the first time, females and males earned about the same number of these types of degrees.

In 2006–07, females of each racial/ethnic group generally earned more degrees than their male counterparts for each type of degree. For example, in 2006-07, Black females earned 69 percent of associate's, 66 percent of bachelor's, 71 percent of master's, 63 percent of first-professional, and 66 percent of doctoral degrees awarded to Black students (see table A-24-2). Females also earned more than 60 percent of associate's, bachelor's, and master's degrees awarded to Hispanic and American Indian/Alaska Native students. White females earned more degrees than White males for each type of degree, except first-professional. Of the postbaccalaureate degrees awarded to nonresident aliens, females earned 43 percent of master's degrees, 46 percent of first-professional degrees, and 35 percent of doctoral degrees, reflecting increased shares since 1996–97.



For more information: *Tables A-24-1 and A-24-2*; Indicator 42

Glossary: Doctoral degree, First-professional degree, Nonresident alien

#### **Technical Notes**

Reported racial/ethnic distributions of students by type of degree, field of degree, and sex were used to estimate race/ethnicity for students whose race/ethnicity was not reported. Race categories exclude persons of Hispanic

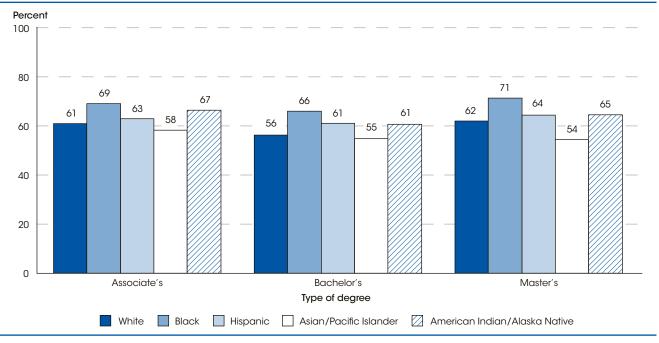
ethnicity. Nonresident aliens are featured separately since information about their race/ethnicity is not available. For more information on race/ethnicity, see *supplemental* note 1.

Type of degree Associate's 1996-97 2001-02 2006-07 Bachelor's 1996-97 2001-02 2006-07 Master's 1996-97 2001-02 2006-07 0 200,000 400,000 600,000 800,000 1,000,000 1,200,000 1,400,000 1,600,000 Number White Black Hispanic Asian/Pacific Islander American Indian/ Nonresident alien Alaska Native

Figure 24-1. Number of degrees conferred, by type of degree and race/ethnicity: Academic years 1996–97, 2001–02, and 2006–07

NOTE: Reported racial/ethnic distributions of students by type of degree, field of degree, and sex were used to estimate race/ethnicity for students whose race/ethnicity was not reported. Race categories exclude persons of Hispanic ethnicity. Nonresident aliens are shown separately since information about their race/ethnicity is not available. For more information on race/ethnicity, see *supplemental note 1*. For more information on the Integrated Postsecondary Data System (IPEDS), see *supplemental note 3*. SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996-97, 2001-02, and 2006-07 Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:96) and Fall 2002 and 2007.





NOTE: Reported racial/ethnic distributions of students by type of degree, field of degree, and sex were used to estimate race/ethnicity for students whose race/ethnicity was not reported. Race categories exclude persons of Hispanic ethnicity. For more information on race/ethnicity, see *supplemental note 1*. For more information on the Integrated Postsecondary Education Data System (IPEDS), see *supplemental note 3*. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2006–07 Integrated Postsecondary Education Data System, "Completions Survey," Fall 2007.