

# Higher Education: Gaps in Access and Persistence Study

August 2012





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## Statistical Analysis Report

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## *Letter from the* **Commissioner of the National Center for Education Statistics**

August 2012

Numerous studies have documented persistent gaps between the educational attainment of White males and that of Black, Hispanic, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander males. Further, there is evidence of growing gender gaps within these racial/ethnic groups, as females participate and persist in education at higher rates than their male counterparts. In the interest of formulating policies to address these gaps, Congress has directed the U.S. Department of Education to produce a report documenting the gaps in access to and completion of higher education by minority males and to outline specific policies that can help address these gaps (Higher Education Opportunity Act, H.R. 4137, 110th Cong. §1109, 2008). Within the U.S. Department of Education, the National Center for Education Statistics (NCES) was given the responsibility for responding to the component of the mandate related to producing a report that documents gaps in access to and completion of higher education.

The NCES report *Higher Education: Gaps in Access and Persistence Study* presents 46 indicators of important developments and trends in the education of males and females within and across specific racial/ethnic groups. These indicators focus on student demographics, school characteristics, student behaviors and afterschool activities, academic preparation and achievement, students' college knowledge, postsecondary education, and postsecondary outcomes and employment. In the chapters that follow, we use the most recent data available to explore the educational achievements and challenges of males and females, noting where the groups are similar and where they differ.

The primary focus of the *Higher Education: Gaps in Access and Persistence Study* is to examine differences between males and females overall and within racial/ethnic groups. The racial/ethnic groups of interest include Blacks, Hispanics, Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives. The secondary focus of the report is to examine overall sex and racial/ethnic differences. In addition to the indicators, this report also includes descriptive multivariate analyses of variables that may influence male and female postsecondary attendance and attainment in different ways.



Jack Buckley  
Commissioner  
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## Executive Summary

Numerous studies, including those of the National Center for Education Statistics (NCES), have documented persistent gaps between the educational attainment of White males and that of Black, Hispanic, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander males. Further, there is evidence of growing gaps by sex within these racial/ethnic groups, as females participate and persist in education at higher rates than their male counterparts (Aud, Fox, and KewalRamani 2010; Aud et al. 2011). In the interest of formulating policies to address these gaps, Congress directed the U.S. Department of Education to produce a report documenting the gaps in access to and completion of higher education by minority males and to outline specific policies that can help address these gaps (Higher Education Opportunity Act, H.R. 4137, 110th Cong. §1109, 2008). NCES was directed to produce the *Higher Education: Gaps in Access and Persistence Study*, a statistical report that documents the scope and nature of the gaps by sex and by race/ethnicity.

The primary focus of the *Higher Education: Gaps in Access and Persistence Study* is to examine gaps in educational participation and attainment between male Blacks, Hispanics, Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives and their female counterparts and to examine gaps between males in these racial/ethnic groups and White males. The secondary focus of the report is to examine overall sex and racial/ethnic differences. In addition to these descriptive indicators, this report also includes descriptive multivariate analyses of variables that are associated with male and female postsecondary attendance and attainment.

Postsecondary attendance rates are generally lower for youth from lower socioeconomic backgrounds and those from various racial/ethnic groups (e.g., Blacks and Hispanics) when compared to Whites and Asians (Aud et al. 2011). In 2010, as in every year since 1980, a lower percentage of male than female 18- to 24-year-olds were enrolled either in college or graduate school (39 vs. 47 percent). This pattern was also observed for Whites (43 vs. 51 percent), Blacks (31 vs. 43 percent), Hispanics (26 vs. 36 percent), American Indians (24 vs. 33 percent), and persons of two or more races (40 vs. 49 percent). In addition to college enrollment differences, there are gaps in postsecondary attainment for males and females. For instance, among first-time students seeking bachelor's degrees who started full time at a 4-year college in 2004, a higher percentage of females than males completed bachelor's degrees within 6 years (61 vs. 56 percent)—a pattern that held across all racial/ethnic groups.

This report will document the scope and nature of a number of differences between sex and racial/ethnic groups in education preparation and achievement as well as differences in postsecondary access, persistence,

and attainment between males and females within and across racial/ethnic groups. The report presents indicators that include the most recently available, nationally representative data from NCES, other federal agencies, and selected items from the ACT and the College Board. The report draws on multiple sources that represent different years and different populations.

## Demographic Context

### Children in Poverty and Language Minorities

In 2010, some 21 percent of children under age 18 were living in poverty, and the poverty rate for children living with a female parent with no spouse present was 44 percent. The poverty rate for children living with a female parent with no spouse present was higher for American Indian children (53 percent) than for children of all other racial/ethnic groups (with the exception of Black and Hispanic children). There were no measurable differences in male versus female poverty rates for children living with a female parent with no spouse present.

Also, in 2010, some 11.8 million children ages 5 to 17 (about 22 percent of the school-age population) spoke a language other than English at home (2.7 million speaking English with difficulty). The percentage who spoke a language other than English at home and spoke English with difficulty was higher for Hispanics (16 percent) and Asians (15 percent) than for Alaska Natives (7 percent), Native Hawaiians/Pacific Islanders (5 percent), American Indians (2 percent), children of two or more races (2 percent), Whites (1 percent), and Blacks (1 percent). No measurable differences were observed between males and females overall. However, higher percentages of Asian and Hispanic males (16 percent each) spoke a language other than English at home and spoke English with difficulty than females (14 and 15 percent, respectively) in their racial/ethnic group. In addition, a higher percentage of Hispanic school-age children born outside of the United States spoke a non-English language at home and spoke English with difficulty than did their counterparts born within the United States (35 vs. 13 percent).

### Parents' Educational Attainment and Involvement in Education

In 2010, about 11 percent of children between the ages of 6 and 18 lived in a household where neither parent had earned at least a high school credential (either a diploma or an equivalency credential such as a General Educational Development [GED] certificate). The percentage of children with parents who had not earned a high school credential was 11 percent for both males and females. Also, no measurable differences by sex within racial/ethnic groups were found at any of the three levels of educational attainment examined (less than high school completion, high school completion,

and bachelor's or higher degree completion). However, differences by race/ethnicity were observed. For example, the percentages of Asian (59 percent), White (44 percent), and children of two or more races (38 percent) who had parents with a bachelor's degree or higher were higher than the corresponding percentages of Black (20 percent), Hispanic (16 percent), Native Hawaiian/Pacific Islander (18 percent), American Indian (18 percent), and Alaska Native children (16 percent).

In 2007, parents' participation in their children's education varied by type of involvement. For example, among students in kindergarten through 12th grade, about 89 percent had parents who reported attending a general school or PTO/PTA meeting, 78 percent had parents who reported attending regularly scheduled parent-teacher conferences, 74 percent had parents who reported attending a school or class event, 65 percent had parents who reported participating in school fundraising, and 46 percent had parents who reported volunteering or serving on a school committee. A higher percentage of female than male students had parents who reported participation in such school-related activities as attending a school or class event or volunteering or serving on a school committee. However, a higher percentage of males than females had parents who attended regularly scheduled parent-teacher conferences. Parental participation in some school-related activities varied by race/ethnicity. For example, 77 percent of White males had parents who reported attending a school or class event, compared with 62 percent of Black males and 61 percent of Hispanic males.

## Special Needs Children

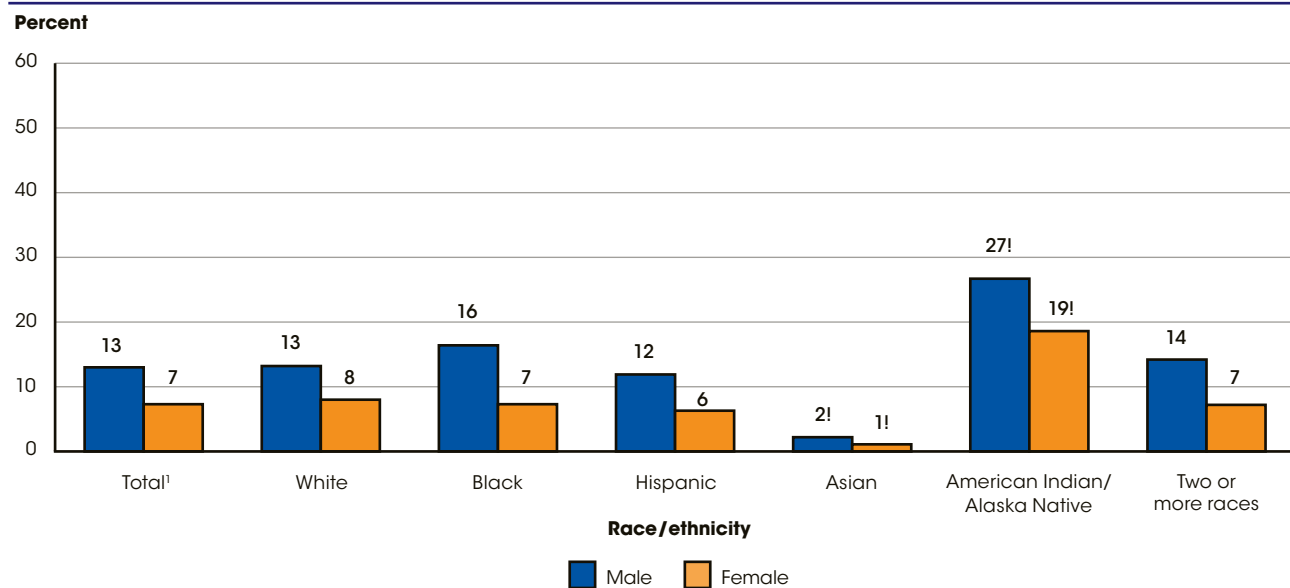
In 2009, about 10 percent of 9th-grade students received special education services. A higher percentage of male (13 percent) than female (7 percent) students received special education services. This pattern was also found for Whites (13 vs. 8 percent), Blacks (16 vs. 7 percent), Hispanics (12 vs. 6 percent), and students of two or more races (14 vs. 7 percent). Among male students, a higher percentage of American Indian/Alaska Natives (27 percent), Whites (13 percent), Blacks (16 percent), Hispanics (12 percent), and males of two or more races (14 percent) received special education services than Asian males (2 percent).

## Characteristics of Schools

### Racial/Ethnic Concentration and Poverty in Schools

In 2010–11, over 49 million students were enrolled in public elementary and secondary schools. Enrollment patterns for males and females were similar within racial/ethnic groups. Looking at enrollment patterns by students' race/ethnicity, 84 percent of White students attended a predominantly White school (a school where at least 50 percent of the students were White), 46 percent of Black students attended a predominantly Black school, 56 percent of Hispanic students attended a predominantly Hispanic school, 12 percent of Asians attended a predominantly Asian school, 13 percent of Pacific Islander students attended a predominantly Pacific Islander school, and 23 percent of American Indian/Alaska Native students attended a predominantly American Indian/

**Figure 1. (Figure 5-1) Percentage of students receiving special education services in 9th grade, by race/ethnicity and sex: 2009**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

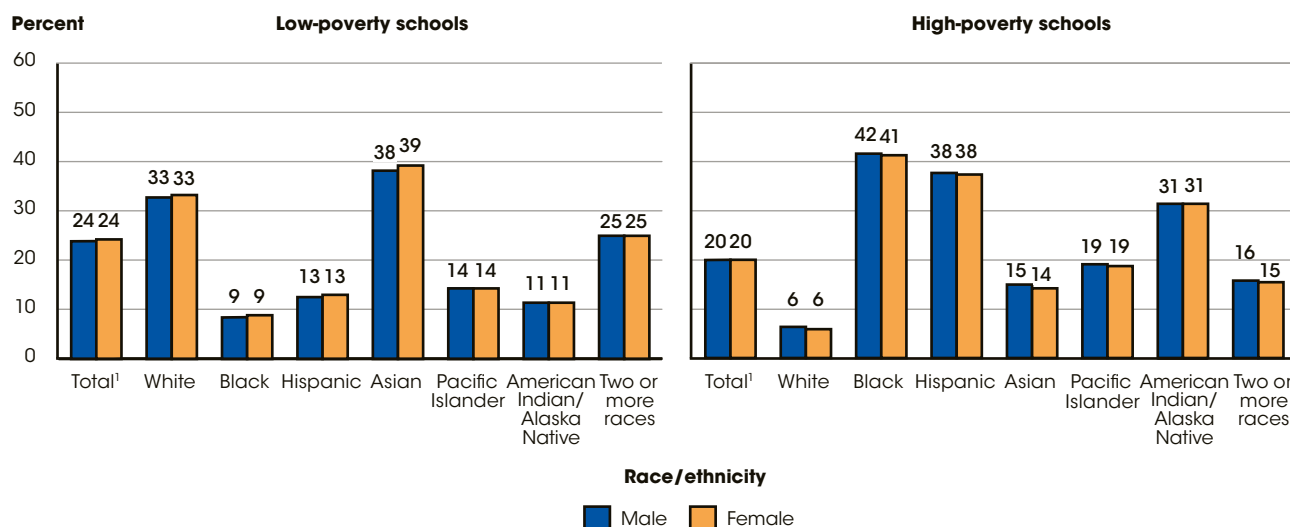
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.



**Figure 2. (Figure 6-2) Percentage of students in low- and high-poverty public elementary and secondary schools, by race/ethnicity and sex: School year 2010–11**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Low-poverty schools are those where 25 percent or fewer students were eligible for free or reduced-price lunch; high-poverty schools are those where more than 75 percent of students were eligible for free or reduced-price lunch. Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010–11.

Alaska Native school. Other racial/ethnic patterns include higher enrollment at high-poverty schools for Black (41 percent), Hispanic (38 percent), and American Indian/Alaska Native students (31 percent) than for Pacific Islander (19 percent), two or more races (16 percent), Asian (15 percent), and White students (6 percent).

### Adequate Yearly Progress and Special Schools

In 2008–09, some 60 percent of public school students attended a school that met adequate yearly progress (AYP), an individual state’s measure toward achieving state academic standards based on criteria contained in the Elementary and Secondary Education Act (ESEA) Reauthorization. No measurable differences in school AYP status were found between males and females (overall or by race/ethnicity). However, racial/ethnic differences were observed. Higher percentages of Black (46 percent), Hispanic (48 percent), Asian/Pacific Islander (40 percent), and American Indian/Alaska Native students (40 percent) than White students (33 percent) attended schools that did not meet AYP. The percentage of students attending schools that did not meet AYP was similar for males and females (both overall and within each racial/ethnic group), although it did vary by race/ethnicity.

In 2010–11, nearly all students (98 percent) in public elementary and secondary schools in the United States attended regular public schools, 1 percent attended alternative schools,<sup>1</sup> and less than 1 percent each attended special education schools and vocational education schools. About 4 percent each of students attended charter

<sup>1</sup> An alternative school is a public elementary/secondary school that (1) addresses needs of students that typically cannot be met in a regular school, (2) provides nontraditional education, (3) serves as an adjunct to a regular school, or (4) falls outside the categories of regular, special education, or vocational education.

schools and magnet schools, most of which were also classified as regular schools. At alternative schools ending in grade 12, males enrolled at higher rates than females did both overall and within each racial/ethnic group studied.

### High School Guidance Counseling

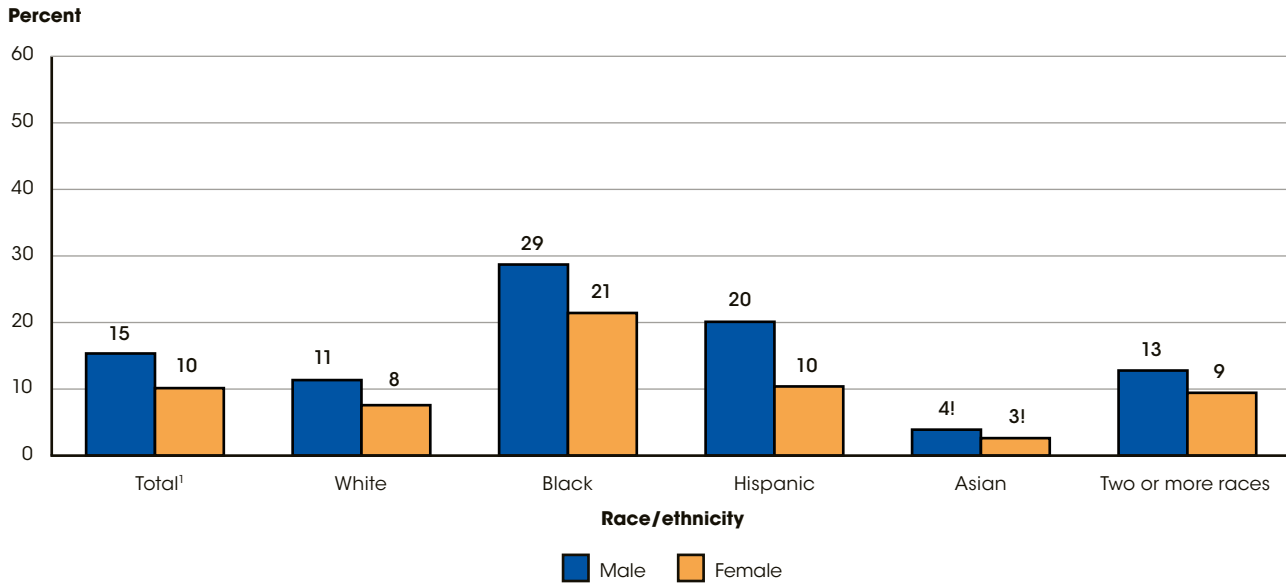
In 2009, about 48 percent of 9th-graders had high school guidance counselors who reported that the counseling program’s primary goal was to help students plan and prepare for postsecondary education, and 35 percent had counselors who reported that the primary goal was to help students improve their achievement in high school. No measurable differences were found between male and female 9th-graders (overall or within racial/ethnic groups) for either of the primary counseling goals. However, a higher percentage of Asian 9th-graders (60 percent) than Black (44 percent), Hispanic (41 percent), and American Indian/Alaska Native 9th-graders (29 percent) had counselors who reported that the primary counseling program goal was helping students plan and prepare for postsecondary education. Among male 9th-graders, higher percentages of Asians (56 percent) and Whites (51 percent) than Hispanics (38 percent) attended schools in which the counseling program’s primary goal was postsecondary planning and preparation.

### Student Behaviors and Afterschool Activities

#### Retention, Suspension, and Expulsion

According to parent reports, in 2009, some 13 percent of 9th-grade students had been retained in any of grades kindergarten through 9. In 2009, a higher percentage of males than females had been retained in any grade. Also,

**Figure 3. (Figure 11-1) Percentage of 9th-grade students who had ever been retained in any of grades kindergarten through 9, by race/ethnicity and sex: 2009**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are based on parent responses. Reporting standards for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native females were not met; therefore, data for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females are not shown in the figure. Data weighted by W1PARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use File.

compared with their female peers, higher percentages of White, Black, and Hispanic male students had been suspended or expelled. For example, there was a difference of 18 percentage points between Black males and females on this percentage (42 vs. 24 percent).

### Student Safety at School

In 2009, some 8 percent of students in grades 9 through 12 reported that they had been threatened or injured with a weapon, 11 percent reported that they had engaged in a physical fight, and 23 percent reported that drugs were available to them on school property in the past 12 months. Six percent of students reported having carried a weapon to school on one or more of the past 30 days. Overall, males reported having each of these experiences at higher rates than females did. Among male students, a lower percentage of Whites were threatened or injured with a weapon (8 percent) than were Blacks (11 percent), Hispanics (12 percent), and persons of two or more races (14 percent). No measurable differences in the percentages of students carrying a weapon on school property were found among males by race/ethnicity: between 6 and 8 percent of males reported carrying a weapon on school property.

### Student Use of Alcohol and Other Drugs

Concerning alcohol and other drugs, 19 percent of students in grades 9 through 12 reported having smoked a cigarette, 42 percent reported having drunk alcohol, and 21 percent reported having smoked marijuana on one or more of the past 30 days. Six percent of students reported having ever used cocaine, 12 percent reported having

ever used inhalants, and 4 percent reported having ever used methamphetamines. Overall, higher percentages of males than females reported having smoked marijuana in the past month, ever used cocaine, and ever used methamphetamines in 2009. In contrast, a higher percentage of females than males reported having ever used inhalants; there were no measurable differences in the overall percentage of males and females reporting the use of alcohol.

### Homework

In 2007, according to parent reports, 93 percent of high school students in grades 9 through 12 did some homework outside of school. In addition, the parents of 65 percent of high school students checked to ensure that their homework was completed. The percentage of high school students whose parents checked for homework completion was higher for males than for females (68 vs. 61 percent). Checking for homework completion was more prevalent among the parents of Black males (86 percent) than among the parents of White (61 percent), Hispanic (74 percent), and Asian (58 percent) males and the parents of males of two or more races (66 percent).

### Part-Time Employment

In 2010, about 17 percent of high school students ages 16 and older were employed. Several differences in employment rates were found by race/ethnicity and sex. White students had the highest rate of employment at 22 percent. Among White and Black students and students of two or more races, higher percentages of females than males were employed. The opposite pattern was observed

for Asian students: 10 percent of Asian males worked, compared with 7 percent of Asian females.

## Academic Preparation and Achievement

### Reading, Mathematics, and Science Achievement

At the 4th- and 8th-grade levels in 2011, higher percentages of females than males scored at or above *Proficient* on the National Assessment of Educational Progress (NAEP) reading assessment. For example, at the 8th-grade level, 38 percent of females scored at or above *Proficient*, compared to 29 percent of males. This pattern by sex was found for all racial/ethnic groups except for Native Hawaiians/Pacific Islanders in the 4th grade and Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives in the 8th grade. In 2009, the most recent year for which 12th-grade NAEP data were available, a higher percentage of 12th-grade females than males scored at or above *Proficient* in reading (43 vs. 32 percent). This pattern was also found for White, Black, and Hispanic 12th-graders.

In 2011, some 40 percent of 4th-graders and 35 percent of 8th-graders scored at or above the *Proficient* level on the NAEP mathematics assessment. In 2009, the most recent year for which 12th-grade NAEP data were available, some 26 percent of 12th-graders scored at or above the *Proficient* level in mathematics. In both the 4th and 8th grades, higher percentages of males than females scored at or above *Proficient* on the mathematics portion of NAEP in 2011. For example, at the 4th-grade level, 42 percent of males scored at or above *Proficient*, compared to 39 percent of females. This pattern was also found for White and Hispanic students in the 4th grade and for White students in the 8th grade. In contrast, a lower percentage of 8th-grade Native Hawaiian/Pacific Islander males (17 percent) than females (28 percent) scored at or above *Proficient* in mathematics. Among the remaining racial/ethnic groups, the percentages of males and females scoring at or above *Proficient* did not measurably differ at either grade level. Among 12th-graders in 2009, higher percentages of males than females scored at or above *Proficient* on the NAEP mathematics assessment. This pattern was also found for White and Hispanic students.

In 2009, at all three grade levels, a higher percentage of males than females scored at or above *Proficient* on the NAEP science assessment. This pattern by sex held among White students in the 4th grade and among White, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students in the 8th grade. It also held among White and Hispanic students in the 12th grade: 32 percent of White males scored at or above *Proficient*, compared with 22 percent of White females; and 11 percent of Hispanic males scored at or above *Proficient*, compared with 6 percent of Hispanic females.

## Eighth-Grade Algebra

The Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) assessed students' mathematics achievement in elementary and middle school and collected information from students' mathematics teachers on their mathematics coursetaking in 8th grade. Of the students who scored in the top half of the ECLS-K 5th-grade mathematics assessment in the spring of 2004, 58 percent went on to enroll in algebra or a more advanced mathematics course in 8th grade in the spring of 2007. A higher percentage of males than females scored in the top half of the ECLS-K 5th-grade mathematics assessment (54 vs. 46 percent); however, of students that scored in the top half, a lower percentage of males than females went on to enroll in algebra or a more advanced course in 8th grade (51 vs. 66 percent). Among males who scored in the top half of the 5th-grade assessment, the percentage of Black students enrolled in algebra or an advanced course other than algebra by 8th grade (20 percent) was lower than the percentages of Asian (92 percent), White (54 percent), and Hispanic (51 percent) students enrolled.

### Advanced Placement Exams and College Entrance Exams

In May 2010, about 58 percent of students who took an Advanced Placement (AP) exam received a score of 3 or higher in at least one subject area. A higher percentage of males than females received a score of 3 or higher on any AP exam (61 percent vs. 54 percent). This pattern held across all racial/ethnic groups. Among males, 69 percent of Asian/Pacific Islanders received a score of 3 or higher, compared with 67 percent of White students, 48 percent of American Indian/Alaska Native students, 44 percent of Hispanic students, and 29 percent of Black students.

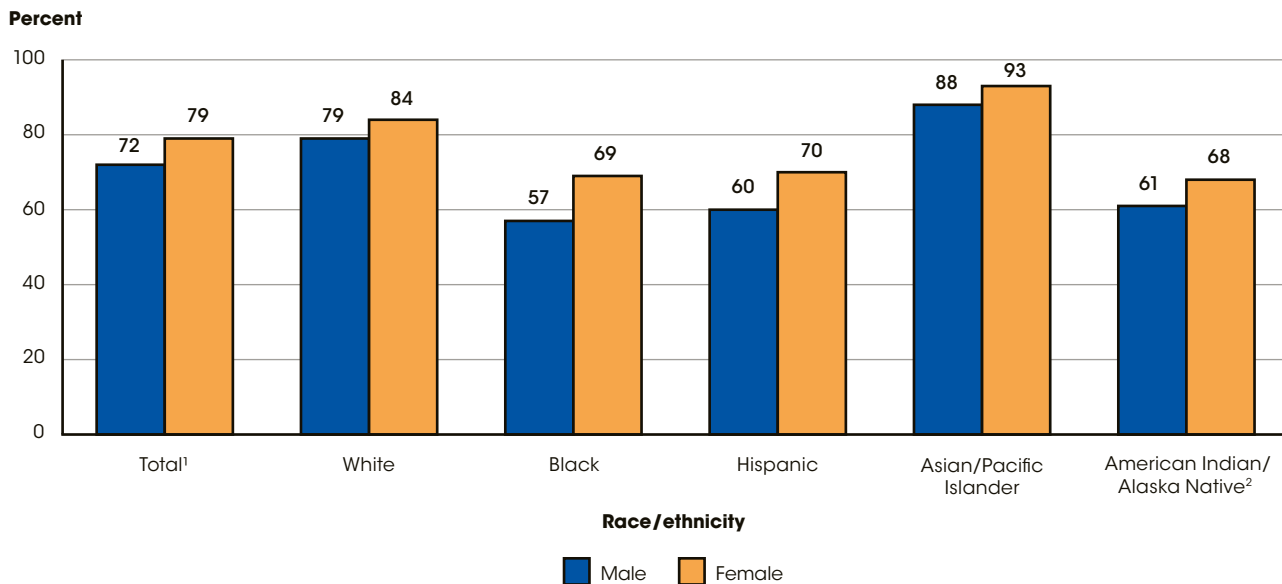
In 2011, some 25 percent of all students who took the ACT met or exceeded the ACT college readiness score in all four subject areas (English, mathematics, reading, and science). A higher percentage of males than females (28 vs. 22 percent) achieved all four ACT college benchmark scores. This pattern held across all racial/ethnic groups. Higher percentages of males than females achieved the four benchmark scores within the Asian (44 vs. 37 percent), White (35 vs. 28 percent), Native Hawaiian/Pacific Islander (18 vs. 12 percent), Hispanic (14 vs. 9 percent), American Indian/Alaska Native (14 vs. 10 percent), and Black (5 vs. 4 percent) racial/ethnic groups.

### Averaged Freshman Graduation Rates

The averaged freshman graduation rate (AFGR) estimates the proportion of public high school freshmen who graduate with a regular diploma<sup>2</sup> 4 years after starting 9th grade. The AFGR for the class of 2008–09 was

<sup>2</sup> Regular diploma recipients are students who meet or exceed the coursework and performance standards for high school completion established by a state or another relevant authority. Other high school completers who were awarded alternate credentials such as a certificate of completion or an equivalency credential are not included in the AFGR calculations because they are not considered regular graduates.

**Figure 4. (Figure 25-1) Averaged freshman graduation rate (AFGR) in public schools, by race/ethnicity and sex: 2008–09**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure. The United States total includes all 50 states and the District of Columbia.

<sup>2</sup> The rate for American Indians/Alaska Natives excludes students served in schools operated by the Bureau of Indian Education.

NOTE: AFGR is an estimate of the percentage of an entering freshman class graduating in 4 years. For 2008–09, it equals the total number of diploma recipients in 2008–09 divided by the average membership of the 8th-grade class in 2004–05, the 9th-grade class in 2005–06, and the 10th-grade class in 2006–07.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), State Dropout and Completer Data File: School year 2007–08, version 1b; School year 2008–09, version 1a State Non-Fiscal Data File: School year 2003–04, version 1b; 2004–05, version 1f; 2005–06, version 1b; 2006–07, version 1c LEA Dropout and Completer Data File (Restricted-Use): School year 2008–09, version 1a School File: School year 2003–04, version 1a; 2004–05, version 1b; 2005–06, version 1a; 2006–07, version 1c; 2008–09, version 1b.

75.5 percent. A lower percentage of males than females graduated with a regular diploma (71.8 vs. 78.9 percent). This pattern was also found for Whites (78.9 vs. 84.0 percent), Blacks (57.3 vs. 69.3 percent), Hispanics (60.3 vs. 69.7 percent), Asians/Pacific Islanders (88.0 vs. 93.1 percent), and American Indians/Alaska Natives (60.5 vs. 67.7 percent) in the class of 2008–09. The AFGRs for males were also lower than the AFGRs for females across all 50 states and the District of Columbia.

## College Knowledge

### Postsecondary Plans and Steps Toward Postsecondary Enrollment

In 2009, 9th-graders were asked to indicate the highest level of education they expected to achieve. A lower percentage of males than females (53 vs. 59 percent) expected to complete a bachelor's or graduate/professional degree. This pattern held for White males and females (56 vs. 63 percent) and Black males and females (54 vs. 61 percent), but no measurable differences by sex were observed for other racial/ethnic groups. About 60 percent of Asian males, 59 percent of males of two or more races, 56 percent of White males, and 54 percent of Black males expected to complete at least a bachelor's degree, compared with 44 percent of Hispanic males and 33 percent of American Indian/Alaska Native males.

In 2004, some 57 percent of high school seniors had taken or planned to take the College Board Preliminary SAT

(PSAT), and 82 percent had taken or planned to take the SAT or the ACT. Overall, a higher percentage of females than males had taken or planned to take these tests, a pattern that held for the White and Asian subgroups. No measurable differences between males and females were found for other racial/ethnic groups.

In 2004, a higher percentage of female than male high school seniors had postsecondary aspirations (96 vs. 90 percent). This pattern held for White, Black, Hispanic, and American Indian/Alaska Native males and females. Also, a higher percentage of females than males with postsecondary aspirations applied to at least one postsecondary institution while in high school (78 vs. 70 percent), a finding which held for White, Black, Hispanic, and Asian students.

### Informational Resources

In 2004, among high school seniors with postsecondary aspirations, a higher percentage of females than males went to a high school counselor, teacher, or coach for information on college entrance requirements (86 vs. 83 percent). A higher percentage of female than male college aspirants consulted college websites, publications, or search guides for information on college entrance requirements (80 vs. 68 percent). This pattern held for Whites (82 vs. 70 percent), Blacks (80 vs. 64 percent), Hispanics (68 vs. 55 percent), Asians (84 vs. 75 percent), and those of two or more races (85 vs. 70 percent). Also, a higher percentage of females than males consulted college representatives for information about college entrance

requirements (62 vs. 55 percent). This pattern was also found for White and Hispanic males and females.

### Postsecondary School Choice Factors

In 2004, among the 93 percent of high school seniors with postsecondary aspirations, 67 percent reported that the availability of courses was very important to them when selecting an educational institution. Seniors with postsecondary aspirations also reported the following as very important choice factors: low expenses (36 percent), the availability of financial aid (57 percent), and an institution's academic reputation (58 percent). Higher percentages of females than males considered all of these school choice factors to be very important to their school choice.

However, higher percentages of males than females reported other postsecondary choice factors as very important. Among seniors with postsecondary aspirations, 15 percent thought an institution's athletic program was very important, and 30 percent thought an institution's social life was very important. Higher percentages of males than females reported athletic programs (19 vs. 11 percent) and social life (33 vs. 27 percent) as very important. A similar pattern was found for Whites, Blacks, Hispanics, Asians, and students of two or more races for an institution's athletic programs and for Whites, Blacks, Hispanics, Asians, and American Indians/Alaska Natives for its social life.

Some 83 percent of students who were high school seniors in 2004 had applied to college by 2006. A lower

percentage of males applied to college than females (79 vs. 87 percent)—a pattern that held for Whites (81 vs. 88 percent), Blacks (77 vs. 85 percent), and Hispanics (73 vs. 82 percent). No measurable differences between males and females were found for Asians, American Indians/Alaska Natives, and students of two or more races.

### Postsecondary Education

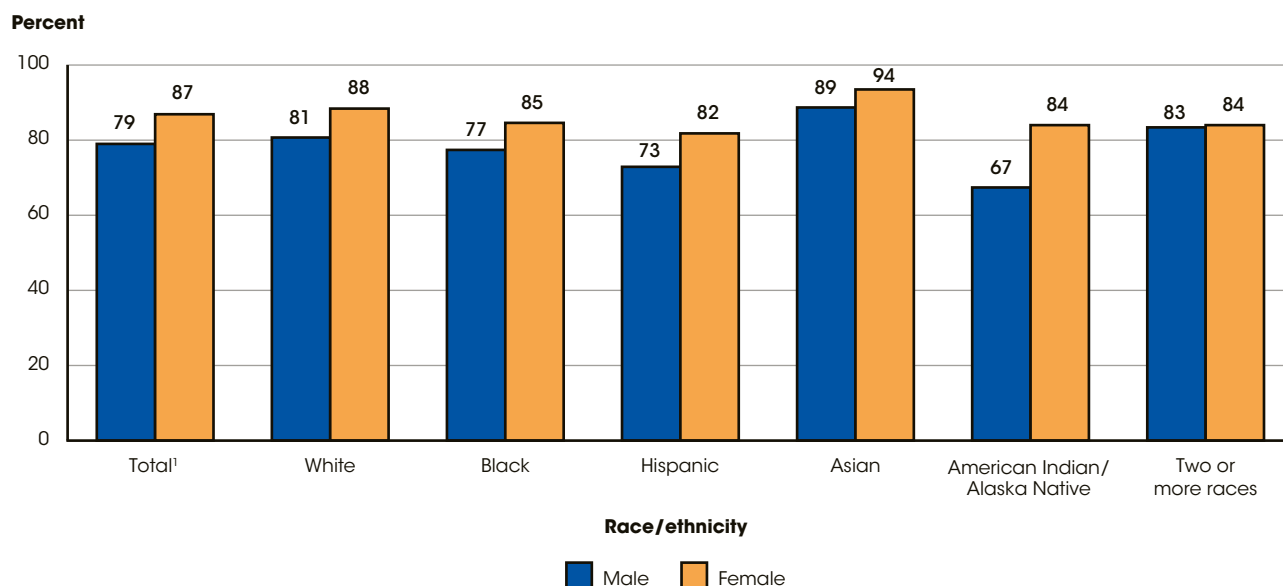
#### Enrollment Rates for 18- to 24-Year-Olds

A higher percentage of 18- to 24-year-olds were enrolled in either college or graduate school in 2010 than in 2006 (43 vs. 40 percent), a pattern that held for males and females. In 2010, as in every year since 1980, a lower percentage of male than female 18- to 24-year-olds were enrolled either in college or graduate school (39 vs. 47 percent). This pattern was also observed for Whites (43 vs. 51 percent), Blacks (31 vs. 43 percent), Hispanics (26 vs. 36 percent), American Indians (24 vs. 33 percent), and persons of two or more races (40 vs. 49 percent).

#### Entry to Postsecondary Education

In 2006, about 80 percent of 2004 high school graduates had ever attended a postsecondary institution. Among the graduating class, 71 percent enrolled immediately after graduation from high school, and 9 percent delayed enrollment. The percentage of females with immediate postsecondary enrollment (74 percent) was higher than that of males (67 percent). This pattern held for White, Hispanic, and Asian students as well. A higher percentage

**Figure 5. (Figure 31-1) Percentage of 2004 high school seniors who had applied to college by 2006, by race/ethnicity and sex: 2006**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

of females (83 percent) than males (76 percent) had attended a postsecondary institution by 2006, a pattern that was also observed among White (85 vs. 78 percent, respectively), Hispanic (76 vs. 68 percent, respectively) and Asian (92 vs. 88 percent, respectively) high school graduates.

Among 2004 high school graduates, a higher percentage of females first attended 4-year institutions than males (50 percent vs. 46 percent, respectively). This pattern by sex was also observed among White and Asian high school graduates. No measurable differences by sex were found among Black, Hispanic, or American Indian/Alaska Native graduates, nor among high school graduates of two or more races.

### Financial Aid

In 2007–08, a higher percentage of female than male undergraduates received financial aid (82 vs. 77 percent). The same pattern was also observed for White, Hispanic, and Asian males and females. Also, in 2007–08, about 53 percent of full-time, full-year undergraduates received student loans to pay for their expenses; among students who received student loans, the average annual amount of total student loans was \$8,000. A higher percentage of females than males received student loans (55 vs. 50 percent). The same pattern was also observed for White and Black males and females. However, among students who took out student loans, the average amount of student loans was similar for males and females overall and within each racial/ethnic group.

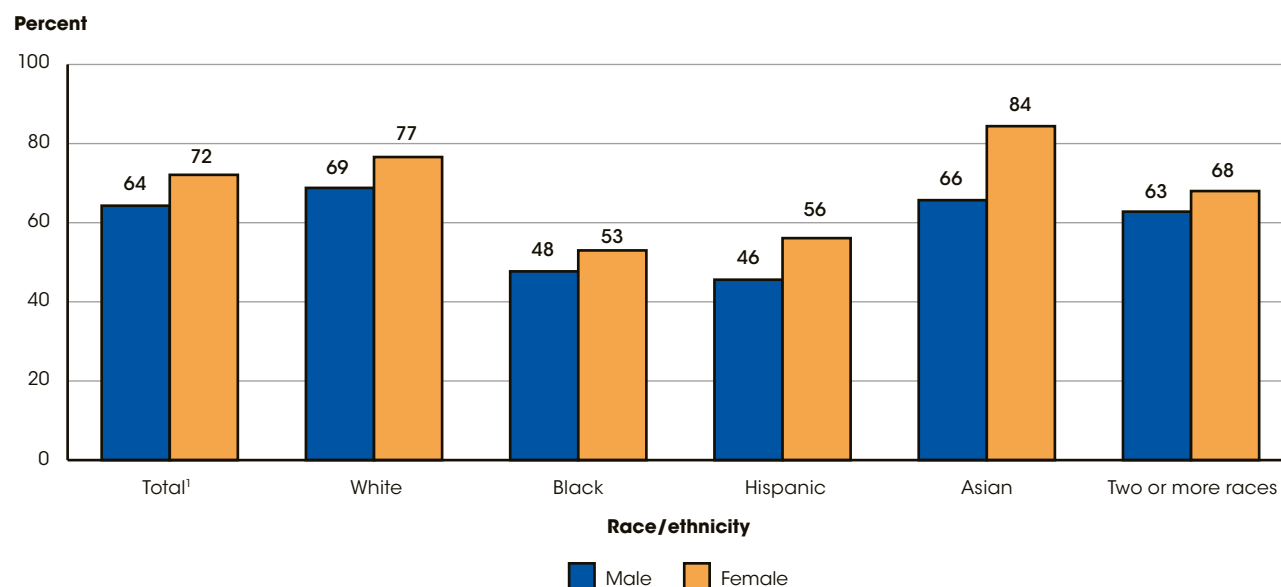
### Enrollment Intensity

Over the duration of a student’s enrollment, a student can enroll full time entirely, enroll part time entirely, or mix full-time and part-time enrollment (i.e., change enrollment status during the enrollment duration). During the 2007–08 academic year, a higher percentage of males than females enrolled as full-time students (49 vs. 47 percent), but no measurable differences (overall or by race/ethnicity) were found between the percentages of male and female undergraduates who enrolled on a part-time basis. Lower percentages of Black (46 percent), Hispanic (45 percent), and Native Hawaiian/Pacific Islander (34 percent) undergraduate males enrolled as full-time students than Asian (50 percent), White (51 percent), and undergraduate males of two or more races (53 percent). In addition, the full-time percentage was higher for Hispanic and Black males than for Native Hawaiian/Pacific Islander males.

### Persistence and Attainment

Approximately 49 percent of 2003–04 beginning postsecondary students had attained some type of postsecondary degree (i.e., certificate, associate’s degree, or bachelor’s degree) by June 2009. A lower percentage of male than female students had attained a postsecondary degree during that time (46 vs. 52 percent). Although this pattern was also observed for White males and females (51 vs. 57 percent) and Asian males and females (48 vs. 68 percent), no measurable differences by sex were found for other racial/ethnic groups. Also, among 2003–04 full-time beginning postsecondary students who first attended a 4-year institution, a lower percentage

**Figure 6. (Figure 37-1) Percentage of 2003–04 full-time, beginning postsecondary students who first attended a 4-year institution and attained a bachelor’s degree by June 2009, by race/ethnicity and sex: 2009**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Reporting standards for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/06/09).

of males than females had attained a bachelor's degree by June 2009 (64 vs. 72 percent). Across racial/ethnic groups, the percentages of Black (51 percent) and Hispanic (52 percent) full-time students at 4-year institutions who attained bachelor's degrees were lower than the percentages of students of two or more races (66 percent), White students (73 percent), and Asian students (76 percent) who attained a bachelor's degree. The same patterns of attainment across race/ethnicity were observed among both males and females, with the exception of students of two or more races.

The percentage of 2003–04 beginning postsecondary male students who did not persist in their education (i.e., had no degree and were no longer enrolled in a postsecondary institution by June 2009) was higher than that of their female peers (37 vs. 35 percent). This pattern was also observed between White males and White females; however, no measurable difference was observed between males and females of any other racial/ethnic group.

### Reasons for Leaving College Without Completing

A higher percentage of male than female students who began at a postsecondary institution in 2003–04 left college by 2004 without completing a degree or certificate program (17 vs. 15 percent). The same pattern was observed between White males and females (17 vs. 14 percent); however, no measurable differences were found between males and females within other racial/ethnic groups. A lower percentage of White males than Black males left in 2004 without completing (17 vs. 22 percent); and the percentage of Asian males who left without completing (9 percent) was lower than the percentages of White males, Hispanic males (19 percent), males of two or more races (20 percent), and Black males. Among 2003–04 beginning postsecondary students who left in 2004 without completing a degree or certificate program, 31 percent reported that they left their institution due to financial reasons, with a higher percentage of males than females reporting financial reasons for leaving (40 vs. 23 percent). The difference between males and females who left due to financial reasons followed a similar pattern for White students, Hispanic students, and students of two or more races.

### Remedial Coursework and Other Academic Experiences

In 2007–08, a lower percentage of male than female first-year undergraduates reported that they had taken a remedial course in college (33 vs. 39 percent). This pattern was observed for White, Hispanic, and American Indian/Alaska Native males and females, as well as males and females of two or more races.

Other academic experiences of students during their first 2 or 3 years as undergraduates were also examined. In 2006, higher percentages of males than females had

received a grade of incomplete (17 vs. 15 percent), had repeated a course for a higher grade (25 vs. 22 percent), or had withdrawn after the add/drop deadline (33 vs. 29 percent). The percentage of males who had changed their major was not measurably different from the percentage of females who had done so.

### Academic and Social Integration

Among 2003–04 beginning postsecondary students who had recently graduated from high school, a lower percentage of male (72 percent) than female (77 percent) students reported that they sometimes or often met with an advisor during their first year of college. Also, a lower percentage of male (33 percent) than female students (37 percent) participated in school clubs in their first year of college. For males, lower percentages of Hispanic (28 percent), Black (29 percent), and White students (34 percent) participated in clubs than did Asian students (43 percent). A higher percentage of male (35 percent) than female students (23 percent) participated in sports during their first year of college. This pattern of sports involvement by sex was also observed for Whites, Blacks, Hispanics, Asians, and students of two or more races. Among male students, lower percentages of beginning Hispanics (23 percent) and Blacks (30 percent) than beginning Whites (38 percent) participated in sports.

### College Student Employment

In 2010, approximately 71 percent of undergraduates ages 16 to 24 were employed. A lower percentage of male than female undergraduates were employed (70 vs. 73 percent); however, a higher percentage of males than females worked 35 or more hours per week (22 vs. 17 percent). Within racial/ethnic groups, the percentage of males who were employed was lower than that of females for Whites (76 vs. 79 percent), Blacks (57 vs. 62 percent), and Asians (49 vs. 52 percent). There were no measurable differences between the employment rates of males and females among Hispanics, Native Hawaiians/Pacific Islanders, American Indians, and students of two or more races. White males (76 percent), males of two or more races (72 percent), American Indian males (65 percent), Hispanic males (64 percent), Native Hawaiian/Pacific Islander males (62 percent), and Black males (57 percent) were employed at higher percentages than were Asian males (49 percent). In addition, Hispanic males were employed at a higher percentage than Black males.

### Graduation Rates and Degrees Conferred

About 58 percent of all first-time students seeking bachelor's degrees who started at a 4-year college full time in 2004 completed a bachelor's degree at that same college within 6 years. A higher percentage of females than males completed bachelor's degrees within 6 years (61 vs. 56 percent). This pattern held across all racial/ethnic groups, with the greatest difference between Black females and males (a 9 percentage point difference) and the smallest difference between American Indian/Alaska Native females and males (a 3 percentage point difference).

Among males, Asian/Pacific Islanders had the highest percentage completing bachelor's degrees within 6 years (66 percent), followed by White (59 percent), Hispanic (46 percent), American Indian/Alaska Native (37 percent), and Black males (34 percent).

In 2010, postsecondary degree-granting institutions conferred a total of 3.4 million associate's, bachelor's, master's, and doctor's degrees. Of this total, 25 percent were associate's degrees, 49 percent were bachelor's degrees, 21 percent were master's degrees, and 5 percent were doctor's degrees. About 25 percent of all bachelor's degrees conferred were in science, technology, engineering, or mathematics (STEM) fields of study. A higher percentage of males than females earned bachelor's degrees in STEM fields (28 vs. 22 percent). This pattern was observed across all racial/ethnic groups, with the greatest difference observed between both Hispanic males and females and Asian/Pacific Islander males and females (a 7 percentage point difference each). The smallest difference was observed between Black males and females (a 2 percentage point difference). Among males, White and American Indian/Alaska Native students earned the same percentage of bachelor's degrees in STEM fields (27 percent each). A higher percentage of Hispanic than Black male students earned bachelor's degrees in STEM fields (24 vs. 22 percent).

## Postsecondary Outcomes and Employment

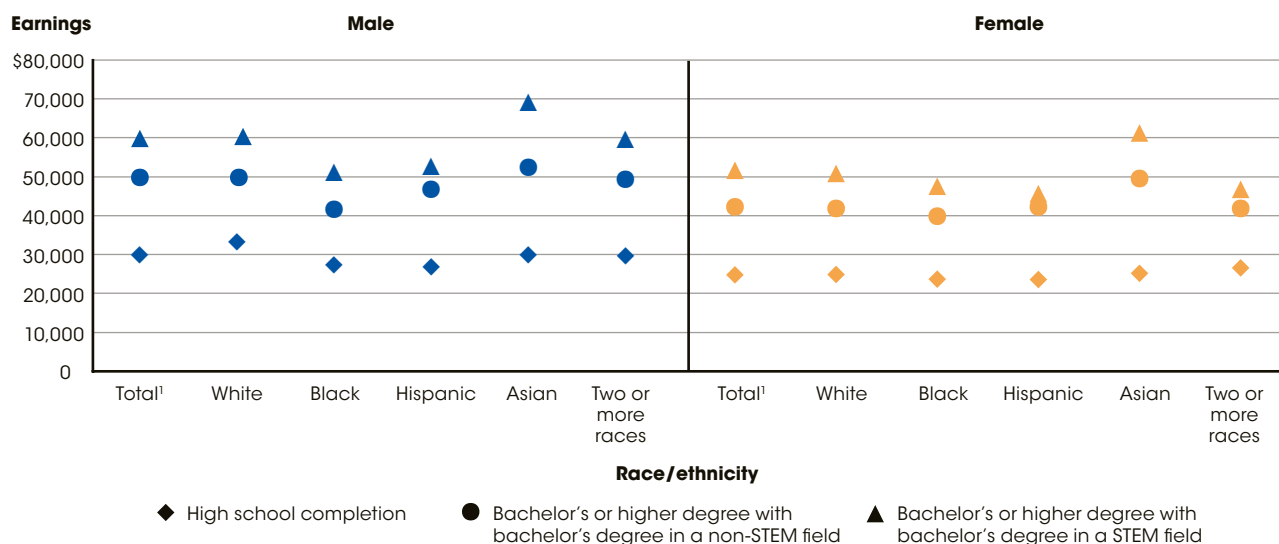
### Educational Attainment

Among the more than 41 million young adults ages 25 to 34 in 2010, a higher percentage of males than females had not completed high school (15 vs. 11 percent). This pattern by sex was also observed among White, Black, and Hispanic young adults, and among young adults of two or more races. Also, the percentage of young adults whose highest level of educational attainment was high school completion was higher for males than females both overall (28 vs. 21 percent) and for most racial/ethnic groups (with the exception of Asians and Native Hawaiians/Pacific Islanders). In 2010, the percentage of young adults whose highest level of educational attainment was a bachelor's or higher degree was lower for males than for females overall (27 vs. 35 percent) as well as for Whites (33 vs. 42 percent), Blacks (15 vs. 23 percent), Hispanics (11 vs. 16 percent), and persons of two or more races (30 vs. 35 percent).

### Labor Force Participation

Among young adults who had not completed high school, a higher percentage of males than females were employed (63 vs. 40 percent), a pattern that held for Whites and Hispanics with this level of educational

**Figure 7. (Figure 45-1) Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34, by sex, race/ethnicity, and highest level of educational attainment: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *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. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. Detail may not sum to totals because of rounding. Reporting standards for at least some data for Native Hawaiian/Pacific Islander males and females, American Indian males and females, and Alaska Native males and females were not met; therefore, data for males and females in these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Science, technology, engineering, and mathematics (STEM) fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies.  
 SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.



attainment. Among males who had not completed high school, a higher percentage of Hispanics (77 percent) were employed than White (55 percent) or Black males (28 percent). Also, a higher percentage of White males than Black males in this group were employed.

Among young adults whose highest level of educational attainment was high school completion, 67 percent were employed in 2010 overall, with a higher rate of employment for males than for females (72 vs. 60 percent). This difference by sex was also observed among Whites and Hispanics. Among males, a lower percentage of Blacks (52 percent) were employed, compared to Whites (74 percent), Hispanics (78 percent), and Asians (76 percent).

For young adults whose highest level of attainment was at least a bachelor's degree, 85 percent were employed in 2010 overall, with a higher employment rate for males than for females (89 vs. 82 percent). In addition, higher percentages of White, Hispanic, and Asian males than females with a bachelor's or higher degree were employed.

### Median Earnings and Employment of Young Adults With STEM Degrees

The 2010 median annual earnings of young adults ages 25 to 34 who worked full time throughout a full year were \$36,200. Median earnings for males whose highest level of educational attainment was high school completion exceeded those for females by about \$5,100 (\$30,200 vs. \$25,100). Median earnings were also higher for male than female high school completers among Whites, Blacks, Hispanics, Asians, and Native Hawaiians/Pacific Islanders. Median annual earnings for young adults with a bachelor's or higher degree were \$50,300 in 2010, and male earnings for this group exceeded female earnings by about \$9,100 (\$54,400 vs. \$45,300); this difference by sex was also observed among Whites, Blacks, Hispanics, Asians, and young adults of two or more races.

Median earnings for young adults with a bachelor's or higher degree in a STEM field (STEM graduates) were \$58,200, about \$7,900 higher than the overall average for young adults with a bachelor's or higher degree in any field. Male earnings for STEM graduates exceeded those for females by about \$8,200 (\$60,400 vs. \$52,200). This pattern by sex also held for Whites, Blacks, Hispanics, Asians, and young adults of two or more races. Among males, STEM earnings for Asians (\$69,900) were higher than earnings for White males (\$60,400), males of two or more races (\$60,400), Hispanic males (\$53,300), Black males (\$51,800), and American Indian males (\$43,800).

## Multivariate Analyses

### Immediate Postsecondary Enrollment

After controlling for race/ethnicity, socioeconomic status, and other background variables, among sophomores in 2002 who graduated from high school by August 2004 (referred to as "on-time" high school graduates), females

were more likely than males to immediately enroll in postsecondary education. This pattern held for White and Hispanic on-time graduates but not for Blacks. In contrast, for Black females who graduated on-time from high school in August 2004, there was no measurable difference from their male counterparts in the likelihood of enrolling in their first postsecondary institution by December 2004.

Immediate enrollees had higher levels of socioeconomic status compared with students with no immediate postsecondary enrollment, a higher mean 9th-grade grade point average (GPA), and a higher mean 10th-grade mathematics achievement test score. In addition, higher percentages of immediate enrollees (than those who did not immediately enroll in postsecondary education) were from two-parent/guardian households, participated in sports, participated in two or more extracurricular activities, and often discussed coursework with their parents. Lower percentages of immediate enrollees (than those who did not immediately enroll in postsecondary education) were ever retained in 10th grade or earlier, were absent from school seven or more times in the first semester, had cut or skipped classes seven or more times, were employed and working more than 30 hours a week, or had at least one close friend who dropped out of school.

These overall findings varied by race/ethnicity and sex. Results indicate that the odds of a male immediately enrolling in postsecondary education were 35 percent lower than the odds for a female, after accounting for other student, family, and high school characteristics that were included as independent variables in the model. In terms of race/ethnicity, the odds of an Asian student immediately enrolling in postsecondary education after high school were 2.57 times the odds for a White student. While the unadjusted bivariate results indicated that lower percentages of Black than White high school graduates immediately enrolled in postsecondary education, the logistic models indicate that Black students had 50 percent higher odds than White students of immediately enrolling in postsecondary education, after accounting for other student, family, and school factors.

### Degree Attainment

Among beginning postsecondary students who were recent high school graduates in 2004, after controlling for race/ethnicity, socioeconomic status, and other background variables, females were more likely than males to have completed an associate's or bachelor's degree program by 2009. This pattern was also observed for Whites and Blacks. However, for beginning postsecondary Hispanic students who were recent high school graduates, there was no measurable difference between males and females in the likelihood of completing an associate's or bachelor's degree program by 2009.

Higher percentages of students who had attained an associate's or bachelor's degree by 2009 than those

who had not attained a degree had a parent who held a bachelor's degree or higher, were from the highest income quartile, had taken precalculus/calculus in high school, had earned college-level credits in high school, had taken the SAT or ACT college entrance exams, first attended a private nonprofit postsecondary institution, first attended a 4-year postsecondary institution, declared a major during their first year of enrollment, sometimes or often met with a college advisor in 2004, sometimes or often participated in school clubs in 2004, sometimes or often participated in school sports in 2004, and were always enrolled full time through 2009. In addition, lower percentages of students who attained an associate's or bachelor's degree by 2009 (compared to those with no degree attainment) took any remedial classes in 2004, worked more than 20 hours a week (including work-

study), experienced two or more stopout periods through 2009, and transferred between institutions two or more times through 2009.

These overall findings varied by race/ethnicity and sex. Results indicate that the odds of attaining either an associate's or bachelor's degree by 2009 for males were 32 percent lower than the odds of degree attainment for females, after accounting for other student, family, high school, and postsecondary institutional characteristics that were included as independent variables in the model. Compared with White students, Black students had 43 percent lower odds and Hispanic students had 25 percent lower odds of attaining an associate's or bachelor's degree, after accounting for other factors.

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# Introduction

The National Center for Education Statistics (NCES) was directed by Congress to produce the *Higher Education: Gaps in Access and Persistence Study (Higher Ed: GAPS)*, a statistical report that documents the scope and nature of gaps in educational participation and attainment between male Blacks, Hispanics, Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives and their female counterparts, as well as gaps between males in these racial/ethnic groups and White males. The primary focus of the *Higher Ed: GAPS* report is to examine differences among males and females both overall and within racial/ethnic groups. The secondary focus of the report is to examine overall racial/ethnic differences. In addition to descriptive indicators, this report also includes descriptive multivariate analyses of variables that are associated with male and female postsecondary attendance and attainment.

The congressional language specified that the *Higher Ed: GAPS* report track males of underrepresented racial/ethnic groups (i.e., Blacks, Hispanics, Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives) through the college attainment pipeline, including college preparation, college access, college attainment, and graduation in fields where they are underrepresented in the labor force. Indicators appearing in past NCES reports, such as *The Condition of Education* and *Status and Trends in the Education of Racial/Ethnic Groups*, have addressed these topics in a general way. However, the intent of Congress indicated that a comprehensive examination of these specific topics was necessary to inform the development of prospective policies that will address these gaps. In order to select the most appropriate indicators to support this goal, NCES convened an expert group of researchers, policy analysts, and relevant U.S. Department of Education staff to review and discuss potential indicators, analysis methodologies, and data sources.

## Organization of the Report

The *Higher Ed: GAPS* report presents indicators that include the most recently available, nationally representative data from NCES, other federal agencies, and selected items from ACT and the College Board. These measures are examined in seven chapters: Demographic Context, Characteristics of Schools, Student Behaviors and Afterschool Activities, Academic Preparation and Achievement, College Knowledge, Postsecondary Education, and Postsecondary Outcomes and Employment. Each indicator consists of text describing key findings, technical notes, one or more figures, and one or more tables. The indicator text generally describes overall differences by sex, differences by sex within racial/ethnic groups, differences between minority males and White and Asian males, and overall racial/ethnic differences. Chapter 8 presents findings from multivariate analyses of relationships between student, family, and school/intentional characteristics and students'

postsecondary enrollment and degree attainment. Appendix A is the technical appendix for the logistic regression analysis and imputation procedures, and appendix B provides a guide to sources at the end of the report. Standard error tables are available on the NCES website (<http://nces.ed.gov/pubs2012/2012046/>).

## Definitions of Race and Ethnicity

The Office of Management and Budget (OMB) is responsible for the standards that govern the categories used to collect and present federal data on race and ethnicity. The OMB revised the guidelines on racial/ethnic categories used by the federal government in October 1997, with a January 2003 deadline for implementation (Office of Management and Budget 1997). The revised standards require a minimum of these five categories for data on race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. The standards also require the collection of data on the ethnicity categories Hispanic or Latino and Not Hispanic or Latino. It is important to note that Hispanic origin is an ethnicity rather than a race, and therefore persons of Hispanic origin may be of any race. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. The race categories White, Black, Asian, Native Hawaiian or Other Pacific Islander, and American Indian or Alaska Native, as presented in this report, exclude persons of Hispanic origin unless noted otherwise.

The categories are defined as follows:

*American Indian or Alaska Native:* A person having origins in any of the original peoples of North and South America (including Central America) and maintaining tribal affiliation or community attachment.

*Asian:* A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

*Black or African American:* A person having origins in any of the black racial groups of Africa.

*Native Hawaiian or Other Pacific Islander:* A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

*White:* A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

*Hispanic or Latino:* A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.

Within this report, some of the category labels have been shortened in the indicator text, tables, and figures. American Indian or Alaska Native is denoted as American Indian/Alaska Native (except when separate estimates are available for American Indians alone or Alaska Natives alone); Black or African American is shortened to Black; and Hispanic or Latino is shortened to Hispanic. When discussed separately, Native Hawaiian or Other Pacific Islander is shortened to Native Hawaiian/Pacific Islander.

The indicators in this report draw from a number of different sources. Many are federal surveys that collect data using the OMB standards for racial/ethnic classification described above; however, some sources have not fully adopted the standards, and some indicators include data collected prior to the adoption of the OMB standards. This report focuses on the six categories that are the most common among the various data sources used: White, Black, Hispanic, Asian, Native Hawaiian/Pacific Islander, and American Indian/Alaska Native. Asians and Native Hawaiians/Pacific Islanders are combined into one category in indicators for which the data were not collected separately for the two groups.

Some of the surveys from which data are presented in this report give respondents the option of selecting either an “other” race category, a “two or more races” or “multiracial” category, or both. Where possible, indicators present data on the “two or more races” category; however, in some cases this category may not be separately shown because the information was not collected or due to other data issues. The “other” category is not separately shown. Any comparisons made between persons of one racial/ethnic group to “all other racial/ethnic groups” include only the racial/ethnic groups shown in the indicator. In some surveys, respondents are not given the option to select more than one race. In these surveys, respondents of two or more races must select a single race category. Any comparisons between data from surveys that give the option to select more than one race and surveys that do not offer such an option should take into account the fact that there is a potential for bias if members of one racial group are more likely than members of the others to identify themselves as “two or more races.”<sup>1</sup> For postsecondary data, foreign students are counted separately and are therefore not included in any racial/ethnic category. Please see Appendix B: Guide to Sources at the end of this report for specific information on each of the report’s data sources.

## Limitations of the Data

The relatively small sizes of the American Indian/Alaska Native and Native Hawaiian/Pacific Islander populations

<sup>1</sup> Such bias was found by a National Center for Health Statistics study that examined race/ethnicity responses to the 2000 Census. This study found, for example, that as the percentage of multiple-race respondents in a county increased, the likelihood of respondents stating Black as their primary race increased among Black/White respondents but decreased among American Indian or Alaska Native/Black respondents. See Parker, J. et al. (2004). Bridging Between Two Standards for Collecting Information on Race and Ethnicity: An Application to Census 2000 and Vital Rates. *Public Health Reports*, 119(2): 192–205. Available through <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1497618>.

pose many measurement difficulties when conducting statistical analysis. Even in larger surveys, the numbers of American Indians/Alaska Natives and Native Hawaiians/Pacific Islanders included in a sample are often small. Researchers studying data on these two populations often face small sample sizes that reduce the reliability of results. Survey data for American Indians/Alaska Natives often have somewhat higher standard errors than data for other racial/ethnic groups (Cahalan et al. 1998). Due to large standard errors, differences that seem substantial are often not statistically significant and, therefore, not cited in the text.

Data on American Indians/Alaska Natives are often subject to inaccuracies that can result from respondents self-identifying their race/ethnicity. Research on the collection of race/ethnicity data suggests that the categorization of American Indian and Alaska Native is the least stable self-identification (U.S. Department of Labor, Bureau of Labor Statistics [BLS] 1995). The racial/ethnic categories presented to a respondent, and the way in which the question is asked, can influence the response, especially for individuals who consider themselves of mixed race or ethnicity. These data limitations should be kept in mind when reading this report.

As mentioned above, Asians and Native Hawaiians/Pacific Islanders are combined into one category in indicators for which the data were not collected separately for the two groups. The combined category can sometimes mask significant differences between subgroups. For example, prior to 2011, the National Assessment of Educational Progress (NAEP) collected data that did not allow for separate reporting of estimates for Asians and Native Hawaiians/Pacific Islanders. Information from the *Digest of Education Statistics, 2011* (table 21), based on the Census Bureau Current Population Reports, indicates that 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian. This combined category for Asians/Pacific Islanders is more representative of Asians than Native Hawaiians/Pacific Islanders. For example, figure A shows the percentages of students scoring at or above the *Proficient* level on the grade 8 NAEP reading and mathematics assessments for Asian/Pacific Islander students as a combined category, Asian students as a separate category, and Native Hawaiian/Pacific Islander students as a separate category. In 2011, approximately 47 percent of 8th-grade students in the combined Asian/Pacific Islander category scored at or above the *Proficient* level on the reading assessment. When examining 8th-grade reading proficiency levels separately for Asians (49 percent) and Native Hawaiians/Pacific Islanders (24 percent), the difference between these two groups emerges. A similar pattern was found for the percentages of Asian/Pacific Islander (55 percent), Asian (58 percent), and Native Hawaiian/Pacific Islander (22 percent) 8th-grade students scoring at or above the *Proficient* level on the mathematics assessment.

The indicators presented in this report are intended to provide a descriptive overview of the education

data available from many federal surveys. Readers are cautioned not to draw causal inferences based on the univariate, bivariate, and multivariate results presented in this report. One of the limitations of bivariate statistics is that they describe subpopulation differences without taking into account the influence of other individual, family, school, or environmental factors. Many of the outcome variables examined in this report may be related to other factors outside of students' sex and race/ethnicity. Although multivariate analyses were conducted to explore some of those relationships, there may be other, more complex interactions and relationships that have not been explored. The indicators were selected to provide a range of data that are relevant to a variety of policy issues surrounding gaps in postsecondary access and persistence, rather than to emphasize any particular issue.

## Statistical Comparisons

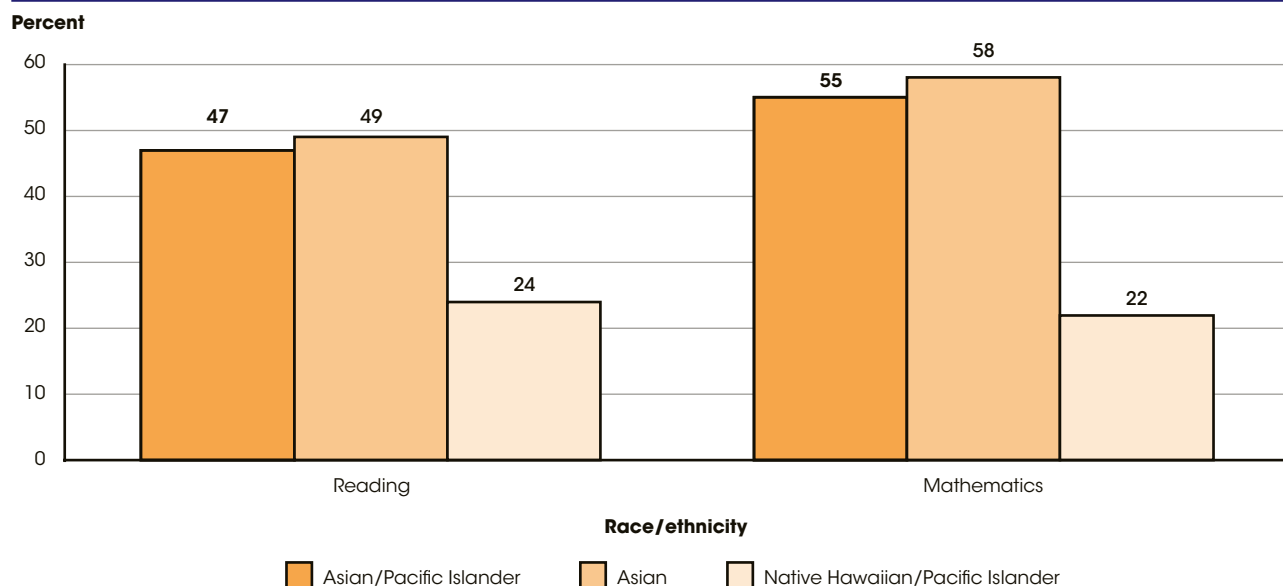
Data for indicators in this report are obtained primarily from two types of surveys: universe surveys and sample surveys. In the case of universe data, information is collected from every member of the population. When data from an entire population are available, estimates of the total population or a subpopulation are made by simply summing the units in the population or subpopulation. As a result, there is no sampling error, and observed differences are reported as true. In the case of sample surveys, a nationally representative sample of respondents is selected and asked to participate in the data collection. When a sample survey is used, statistical

uncertainty is introduced, because the data come from only a portion of the entire population.

Sample survey data include weights to make estimates from the data representative of the population of interest. Indicators based on longitudinal survey data (i.e., Beginning Postsecondary Students Longitudinal Study, Early Childhood Longitudinal Study: Kindergarten Class of 1998–99, Education Longitudinal Study of 2002, and High School Longitudinal Study of 2009) include the specific weight variable name in the table and figure notes because the longitudinal datasets provide multiple weighting variables that could be used for analysis purposes.

Statistical uncertainty about whether the sample population represents the population at large must be considered when reporting estimates and making comparisons. Using estimates calculated from data based on a sample of the population requires consideration of several factors before the estimates become meaningful. When using data from a sample, some *margin of error* will always be present in estimations of characteristics of the total population or subpopulation, because the data are available from only a portion of the total population. Consequently, data from samples can provide only an approximation of the true or actual value. The margin of error of an estimate, or the range of potential true or actual values, depends on several factors such as the amount of variation in the responses, the size and representativeness of the sample, and the

**Figure A. Percentage of students scoring at or above the *Proficient* level on the grade 8 National Assessment of Educational Progress (NAEP) reading and mathematics assessments, by different categorizations of race/ethnicity: 2011**



NOTE: NAEP achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on information obtained from school rosters. Race categories exclude persons of Hispanic ethnicity.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Reading and Mathematics Assessments, NAEP Data Explorer.

size of the subgroup for which the estimate is computed. The magnitude of this margin of error is measured by what statisticians call the “standard error” of an estimate. When data from sample surveys are reported, the standard error is calculated for each estimate. The standard errors for all estimated totals, means, medians, and percentages reported in the *Higher Ed: GAPS* report tables can be viewed on the NCES website (<http://nces.ed.gov/pubs2012/2012046/>).

All statements about differences in this report are supported by the data, either directly in the case of universe surveys or with statistical significance testing in the case of sample survey data. When estimates are from a sample, caution is warranted when drawing conclusions about one estimate in comparison to another. Although one estimate may appear to be larger than another, a statistical test may find that the apparent difference between them is not reliably measurable due to the uncertainty around the estimates. In this case, the estimates will be described as having *no measurable difference*, meaning that the difference between them is not statistically significant.

Whether differences in means or percentages are statistically significant can be determined using the standard errors of the estimates. In this publication and others produced by NCES, when differences are statistically significant, the probability that the difference occurred by chance is less than 5 percent.

For all *Higher Ed: GAPS* report indicators that include estimates based on samples, differences between estimates are stated only when they are statistically significant. To determine whether differences reported are statistically significant, two-tailed *t* tests at the .05 level are typically used. The *t* test formula for determining statistical significance is adjusted when the samples being compared are dependent. The *t* test formula is not adjusted for multiple comparisons. Due to the large sample sizes used

for this report, many differences between estimates are statistically significant. Not all statistically significant results are reported in the text. This report focuses on reporting statistically significant differences between Black, Hispanic, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander males and their peers.

The appearance of a “!” symbol (meaning “Interpret data with caution”) in a table or figure indicates a data cell with a high ratio of standard error to estimate (i.e., the coefficient of variation is greater than or equal to 0.30 but less than 0.50); the reader should use caution when interpreting such data. These estimates are still discussed, however, when statistically significant differences are found despite large standard errors. The appearance of a “‡” symbol (meaning “Reporting standards not met”) indicates a data cell that is suppressed either due to a coefficient of variation that is greater than or equal to 0.50 or too few respondents to meet reporting standards.

All calculations in the *Higher Ed: GAPS* report are based on unrounded estimates. Therefore, the reader may find that a calculation cited in text or figures, such as a difference or a percentage change, may not be identical to the calculation obtained using the rounded values shown in the accompanying tables. Although percentages reported in the tables are generally rounded to one decimal place (e.g., 76.5 percent), percentages reported in the text and figures are generally rounded from the original number to whole numbers (with any value of 0.50 or above rounded to the next highest whole number). While the data labels on the figures have been rounded to whole numbers, the graphical presentation of these data are based on the unrounded estimates shown in the corresponding table. Due to rounding, cumulative percentages may sometimes equal 99 or 101 percent, rather than 100 percent. In addition, sometimes a whole number in the text may seem rounded incorrectly based on its value when rounded to one decimal place. For example, the percentage 14.479 rounds to 14.5 at one decimal place, but rounds to 14 when reported as a whole number.

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# Chapter 1

## Demographic Context

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3. Parent Involvement in Education.....	16
4. Language Minority School-Age Children.....	20
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Many studies have documented the associations between student background and educational outcomes (e.g., high school graduation rates and postsecondary enrollment, persistence, and attainment rates). Demographic factors known to be linked to these outcomes include socioeconomic status indicators (e.g., poverty, family income, and parents' education), parental involvement, student disabilities, and native language. Chapter 1 examines some of these indicators and analyzes group differences by sex and race/ethnicity.

As a case in point, poverty poses a serious challenge to a child's ability to succeed in school and its prevalence is markedly higher among certain racial/ethnic groups than in others. Research has suggested that living in poverty in early childhood is associated with lower than average academic performance that extends through elementary and high school and can lead to lower than average rates of school completion (Black, Hess, and Berenson-Howard 2000; Brooks-Gunn and Duncan 1997; Campbell et al. 2001; Entwisle, Alexander, and Olson 2005; Lee and Burkman 2002). Further, growing up in poverty is negatively correlated with children's physical health, as well as their working memory, possibly due to the chronic psychological stress of living in poverty (Evans and Schamberg 2009).

Other factors—such as parental education levels—have also been linked to child outcomes such as educational experience, attainment, and academic achievement. For example, positive associations have been found between children with highly educated mothers and their rates of participation in early childhood education programs and home literacy activities (Planty et al. 2009). In an earlier report that examined the postsecondary experiences of first-generation college students (college students whose parents had never enrolled in postsecondary education), Nunez and Cuccaro-Alamin (1998) found that among beginning postsecondary students in 1989–90, first-generation college students persisted in postsecondary education and attained credentials at lower rates than their non-first-generation counterparts. This finding held for students at 4-year institutions as well as public 2-year institutions. Even when controlling for many of the characteristics that distinguish first-generation college students from their peers, such as socioeconomic status, institution type, and attendance status, first-generation student status still had a negative effect on persistence and attainment.

Extensive research exists on the importance of parental involvement in children's education (e.g., Jordan, Snow, and Porche 2000; Starkey and Klein 2000; Gutman and Midgley 2000; Shumow and Miller 2001). Children whose parents are involved in their schools by doing such things as attending school events and back-to-school nights or volunteering are more likely to do well in school, to remain in school, and to exhibit fewer behavioral problems than children whose parents are not involved.

Limited English proficiency continues to be associated with educational outcomes for nonnative speakers of English in the United States. Studies have demonstrated that even with additional educational support, students who have difficulty speaking English often have persistently lower academic achievement (e.g., on achievement tests in reading and mathematics) and educational attainment than native English speakers (Brady, Owings, and Quinn 1992; Klein et al. 2004). In addition, language difficulties may contribute to the significantly higher dropout rates observed among foreign-born students in general and Hispanic students in particular than observed among native English speakers. For example, compared with their counterparts who spoke only English at home, a lower percentage of non-native English speakers 18 to 24 years old completed high school (10 percent vs. 31 percent; Klein et al. 2004).

Other students who face educational challenges are those with specific learning or other disabilities. At the elementary and secondary levels, students with disabilities may struggle more to meet academic standards, have lower performance on standardized tests, and graduate high school with a regular diploma at lower rates than their counterparts without disabilities. Further, obstacles for these students may continue into adulthood. For example, a survey of beginning postsecondary students in 1989–90 indicated that students who reported any disabilities had lower rates of persistence and degree attainment than those without disabilities (Horn and Berkthold 1999). In the study, a higher percentage of students with disabilities than without disabilities delayed their postsecondary enrollment a year or more after finishing high school (43 vs. 32 percent) or completed high school through earning a GED (i.e., passing the General Educational Development exam) or other alternative high school credential (12 vs. 6 percent). Those with disabilities stayed enrolled or earned a postsecondary degree or credential within 5 years at lower rates than their counterparts without disabilities.

The first two chapters in this report present demographic information on students, their families, and the schools they attend by sex and race/ethnicity that provides context for the education indicators presented in later chapters. In order to describe the status of males and females and racial/ethnic groups in this country's education system, it is important to provide contextual information on the relative size of each group, where the members of each group come from, and where and how they live. On some indicators, males and females are similar, while races/ethnicities are different. On other indicators—such as the percentage of students with specific learning disabilities—differences are found between males and females overall, as well as within racial/ethnic groups.

## Indicator 1 Children Living in Poverty

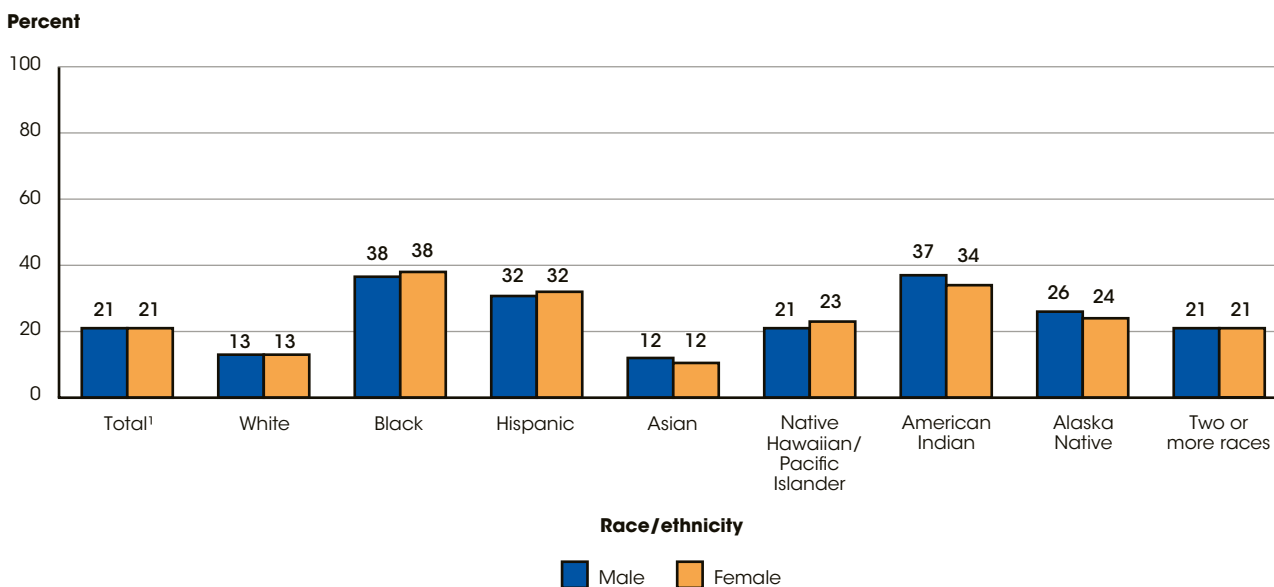
In 2010, the poverty rate for children living with a single mother was higher for American Indian children (53 percent) than for children of two or more races (41 percent), White children (35 percent), Native Hawaiian/Pacific Islander children (33 percent), and Asian children (29 percent). There were no differences in male versus female poverty rates for children living with a single mother.

In 2010, some 21 percent of children under age 18 were living in poverty. The percentage of children living in poverty ranged from 7 percent to 54 percent, depending on race/ethnicity, living arrangement, and nativity.

The percentage of children who were living in poverty in 2010 was higher for Black children (38 percent) than for Hispanic children (32 percent), Alaska Native children (25 percent), children of two or more races (21 percent), Native Hawaiian/Pacific Islander children (22 percent), White children (13 percent), and Asian children (12 percent). No differences were found between Black children living in poverty and their American Indian peers (36 percent); however, the percentage of American Indian children living in poverty was higher than those of all other racial/ethnic groups. The percentages of children living in poverty were higher for Hispanic, Alaska Native, and Native Hawaiian/Pacific Islander children and children of two or more races than for Asian and White children. No measurable differences between male and female child poverty rates were found overall or within racial/ethnic groups in 2010.

In 2010, the poverty rate for children living with a single mother was 44 percent. Differences were found across racial/ethnic groups. The poverty rate for children living with a single mother was higher for American Indian children (53 percent) than for children of two or more races (41 percent), White children (35 percent), Native Hawaiian/Pacific Islander children (33 percent), and Asian children (29 percent). No differences were found between American Indian children and Black children (51 percent) or American Indian and Hispanic children (50 percent) overall. The poverty rate for children living with a single mother was higher for Black and Hispanic children than for children of two or more races, Alaska Native children, White children, Native Hawaiian/Pacific Islander children, and Asian children. Children of two or more races and White children also had higher poverty rates than Asian children. No measurable differences between males and females were found overall or within racial/ethnic groups in the poverty rate for children living with a single mother.

Figure 1-1. Percentage of children under age 18 living in poverty, by race/ethnicity and sex: 2010



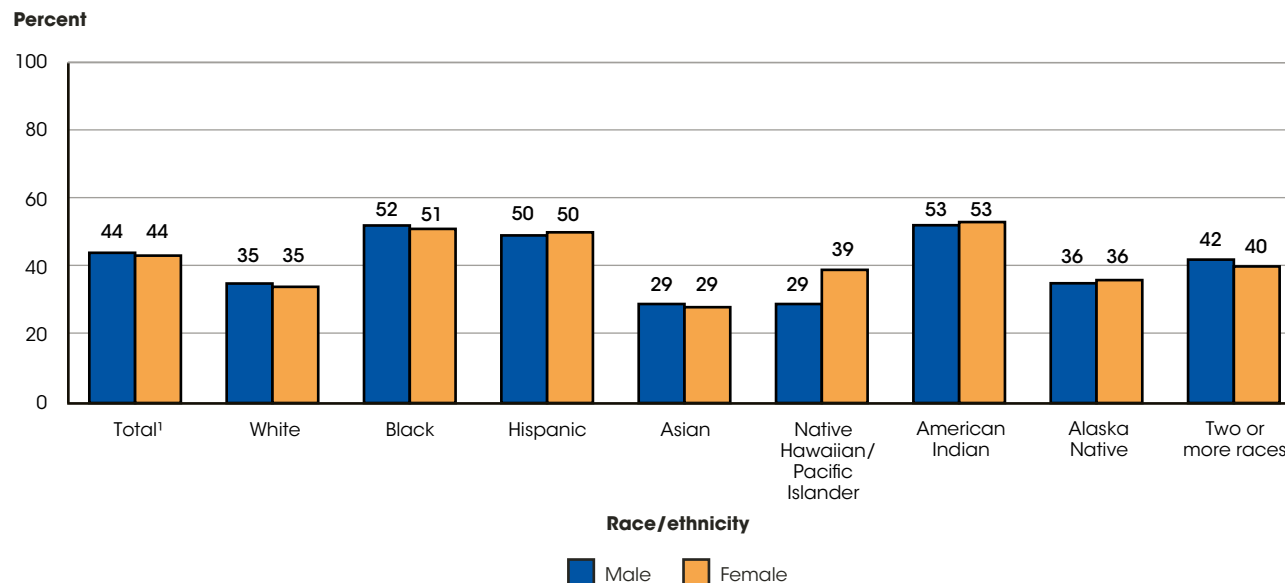
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: To determine living arrangements, children are classified either by their parent's marital status or, if no parents are present in the household, by the marital status of the related householder. Poverty information was available only for children who were related to the householder. Therefore, this figure excludes any children who were not related to the householder or who are recorded as the householder or spouse of the householder. To define poverty, the U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition. A family, along with each individual in it, is considered poor if the family's total income is less than that family's threshold. The poverty thresholds do not vary geographically and are adjusted annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.



**Figure 1-2. Percentage of children under age 18 living in poverty with a female parent and no spouse present, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: To determine living arrangements, children are classified either by their parent's marital status or, if no parents are present in the household, by the marital status of the related householder. Poverty information was available only for children who were related to the householder. Therefore, this figure excludes any children who were not related to the householder or who are recorded as the householder or spouse of the householder. To define poverty, the U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition. A family, along with each individual in it, is considered poor if the family's total income is less than that family's threshold. The poverty thresholds do not vary geographically and are adjusted annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

The percentage of Hispanic children living in poverty differed by nativity. In 2010, the percentage of Hispanic children who were living in poverty was higher for children born outside of the United States than for those born within the United States (39 vs. 31 percent). The same pattern by nativity was found in the poverty rates for children living with a single mother. Of those children in this living arrangement, 54 percent of Hispanic children born outside of the United States were living in poverty, compared with 49 percent of those born within the United States.

Overall, a higher percentage of children were living in poverty in 2010 than in 2005 (21 vs. 18 percent). This finding was true for both male and female children. Some

differences were found by race/ethnicity: the percentages of White, Black, Hispanic, and American Indian children, and children of two or more races living in poverty were higher in 2010 than in 2005. For example, 30 percent of American Indian children were living in poverty in 2005 compared with 36 percent in 2010. The poverty rate for all children living with a single mother was also higher in 2010 than 2005 (44 vs. 42 percent). The percentage of Black children living with a single mother who were living in poverty was higher in 2010 than in 2005 (51 vs. 50 percent). In addition, the percentage of White children living with a single mother who were living in poverty was higher in 2010 than in 2005 (35 vs. 32 percent).

## Technical Notes

To determine living arrangements, children are classified either by their parent's marital status or, if no parents are present in the household, by the marital status of the related householder. Children were identified as living with a single mother if they were living with a female parent with no spouse present in the household. Poverty information was available only for children who were related to the householder. Therefore, estimates exclude any children who were not related to the householder or who are recorded as the householder or spouse of the householder. To define poverty, the U.S. Census Bureau uses a set of money income thresholds that vary by

family size and composition. A family, along with each individual in it, is considered poor if the family's total income is less than that family's threshold. The poverty thresholds do not vary geographically and are adjusted annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

**Table 1-1. Percentage of children under age 18 living in poverty, by living arrangements, sex, race/ethnicity, and nativity: 2005 and 2010**

Sex, race/ethnicity, and nativity	All children related to householder		Living arrangement					
	2005	2010	2005			2010		
			Married parents	Female parent, no spouse present	Male parent, no spouse present	Married parents	Female parent, no spouse present	Male parent, no spouse present
<b>Total<sup>1</sup></b>	<b>18.3</b>	<b>21.1</b>	<b>8.8</b>	<b>42.3</b>	<b>21.4</b>	<b>10.8</b>	<b>44.1</b>	<b>26.0</b>
<b>Sex</b>								
Male	18.0	21.0	8.8	42.1	20.8	10.7	44.4	25.5
Female	18.5	21.3	8.9	42.4	22.1	10.9	43.8	26.7
<b>Race/ethnicity</b>								
White	10.4	12.7	5.3	31.8	15.4	6.6	35.1	19.6
Black	35.5	37.8	12.9	49.7	30.2	14.5	51.3	34.8
Hispanic	29.2	31.9	19.9	50.6	26.8	22.3	49.6	31.9
Asian	12.1	12.2	8.8	32.4	20.8	9.5	29.3	21.7
Native Hawaiian/Pacific Islander	21.5	22.0	16.1	38.0	‡	18.9	33.2	17.0
American Indian/Alaska Native <sup>2</sup>	29.9	34.0	17.0	46.7	33.1	18.6	50.2	39.1
American Indian	30.2	35.5	16.3	47.5	35.4	19.1	52.8	38.9
Alaska Native	24.3	24.6	16.5	35.5	36.3 !	13.5	36.4	27.6 !
Two or more races	19.1	21.3	7.1	39.8	23.1	8.7	41.3	24.7
<b>Race/ethnicity by sex</b>								
<b>Male</b>								
White	10.4	12.6	5.3	31.8	15.3	6.5	35.5	19.5
Black	34.9	37.6	12.9	49.1	28.4	13.8	51.7	33.3
Hispanic	28.9	31.7	19.8	50.5	26.3	22.2	49.5	31.4
Asian	12.6	12.4	9.0	36.3	19.8	9.9	29.4	18.9
Native Hawaiian/Pacific Islander	21.2	21.0	16.0	39.3	‡	19.4	28.8	13.9 !
American Indian/Alaska Native <sup>2</sup>	31.0	35.1	18.9	48.7	28.2	19.8	50.4	41.3
American Indian	30.7	37.1	18.0	48.7	29.0	21.0	52.6	41.2
Alaska Native	26.5	25.5	19.4	36.2	36.9 !	13.4	36.3	36.1 !
Two or more races	18.7	21.5	6.7	39.8	22.3	8.6	42.3	25.0
<b>Female</b>								
White	10.5	12.7	5.3	31.8	15.6	6.6	34.7	19.7
Black	36.2	38.1	12.9	50.4	32.4	15.2	51.0	36.5
Hispanic	29.5	32.1	20.0	50.6	27.3	22.4	49.6	32.4
Asian	11.6	12.0	8.5	28.8	22.0	9.1	29.2	25.2
Native Hawaiian/Pacific Islander	21.9	23.1	16.2	36.6	‡	18.3	38.9	21.3 !
American Indian/Alaska Native <sup>2</sup>	28.8	32.8	15.1	44.8	39.2	17.3	50.0	36.4
American Indian	29.7	33.9	14.6	46.2	43.1	17.2	53.0	35.9
Alaska Native	22.0	23.6	13.8	34.9	35.6 !	13.7	36.4	18.2 !
Two or more races	19.6	21.0	7.5	39.8	24.1	8.8	40.3	24.4
<b>Nativity</b>								
<b>Hispanic</b>								
Born within the United States <sup>3</sup>	28.2	31.3	18.2	49.9	26.4	21.2	49.3	31.4
Born outside of the United States	36.5	38.8	31.7	57.7	28.9	33.5	54.0	36.8

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> Includes persons reporting American Indian only, Alaska Native only, and persons from American Indian and/or Alaska Native tribes specified or not specified.

<sup>3</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: To determine living arrangements, children are classified by either their parents' marital status or, if no parents are present in the household, by the marital status of the related householder. Poverty information was available only for children who were related to the householder. Therefore, this table excludes any children who were not related to the householder or who are recorded as the householder or spouse of the householder. To define poverty, the U.S. Census Bureau utilizes a set of money income thresholds that vary by family size and composition. A family, along with each individual in it, is considered poor if the family's total income is less than that family's threshold. The poverty thresholds do not vary geographically and are adjusted annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2005 and 2010.

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## Indicator 2 Parents' Educational Attainment

*In 2010, no measurable differences were found in parental educational attainment between male and female children, but racial/ethnic groups differed on this background indicator.*

This indicator describes children ages 6 to 18 in terms of the highest education level of either parent in the household, with a focus on three educational attainment levels: less than high school completion, high school completion, and completion of a bachelor's or higher degree. In 2010, about 11 percent of children between the ages of 6 and 18 lived in a household where neither parent had earned at least a high school credential (either a diploma or an equivalency credential such as a General Educational Development [GED] certificate). Twenty-one percent of children had at least one parent whose highest level of educational attainment was completing high school, and 35 percent of children between the ages of 6 and 18 had at least one parent who had completed a bachelor's or higher degree.

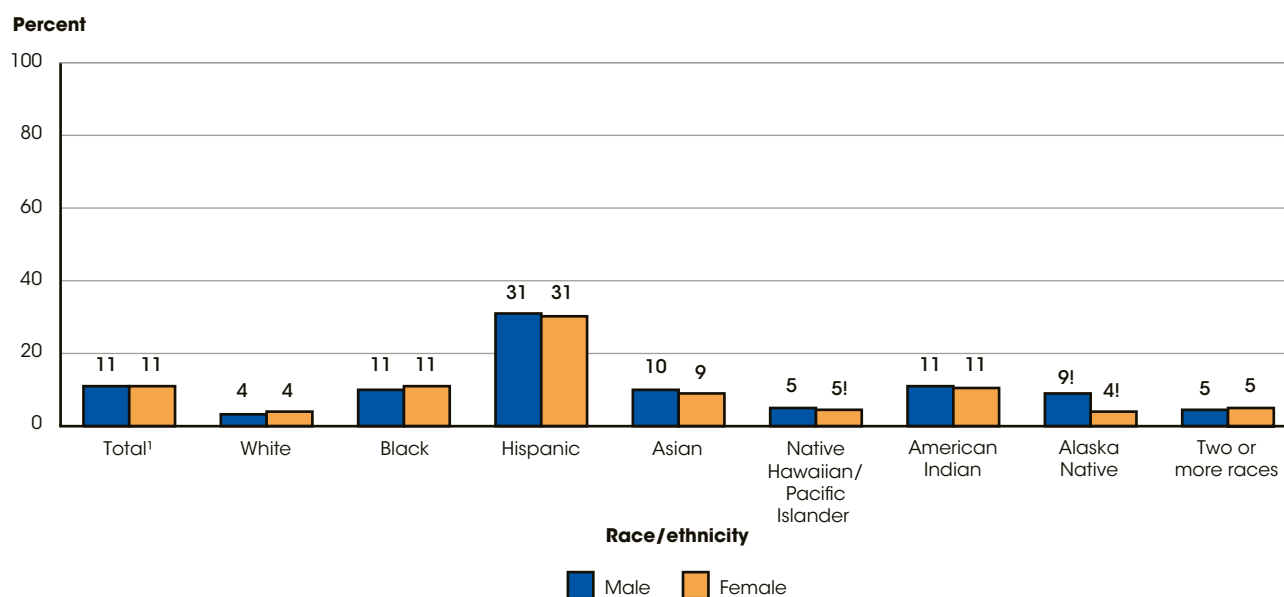
The percentage of children with parents who had not earned a high school credential was 11 percent for both males and females. There were no measurable differences by sex in the percentage of children whose parents' highest level of education was completing high school, nor were differences found by sex for children whose parents' highest educational attainment was earning a bachelor's degree or higher. When measuring differences by sex within racial/ethnic groups, none were found at any of the three levels of educational attainment examined (less

than high school completion, high school completion, and bachelor's or higher degree completion).

A higher percentage of Hispanic children (31 percent) than children of all other/racial ethnic groups had parents who had not completed high school. In addition, a higher percentage of Black children (11 percent) had parents who had not completed high school than had Asian (10 percent), Alaska Native (7 percent), Native Hawaiian/Pacific Islander (5 percent), children of two or more races (5 percent), and White children (4 percent). The percentages of American Indian (11 percent) and Asian children whose parents had not completed high school were higher than those for White children, Native Hawaiian/Pacific Islander children, and children of two or more races. These overall race/ethnicity patterns were similar for females and males across all reported racial/ethnic groups, except that no measurable differences were found between Black males and Asian and Alaska Native males.

The percentage of children whose parents had completed high school as their highest level of educational attainment also differed across racial/ethnic groups. Higher percentages of Alaska Natives (37 percent), Native Hawaiians/Pacific Islanders (30 percent), Blacks

**Figure 2-1. Percentage of children ages 6-18 whose parents' highest level of educational attainment was less than high school completion, by child's race/ethnicity and sex: 2010**



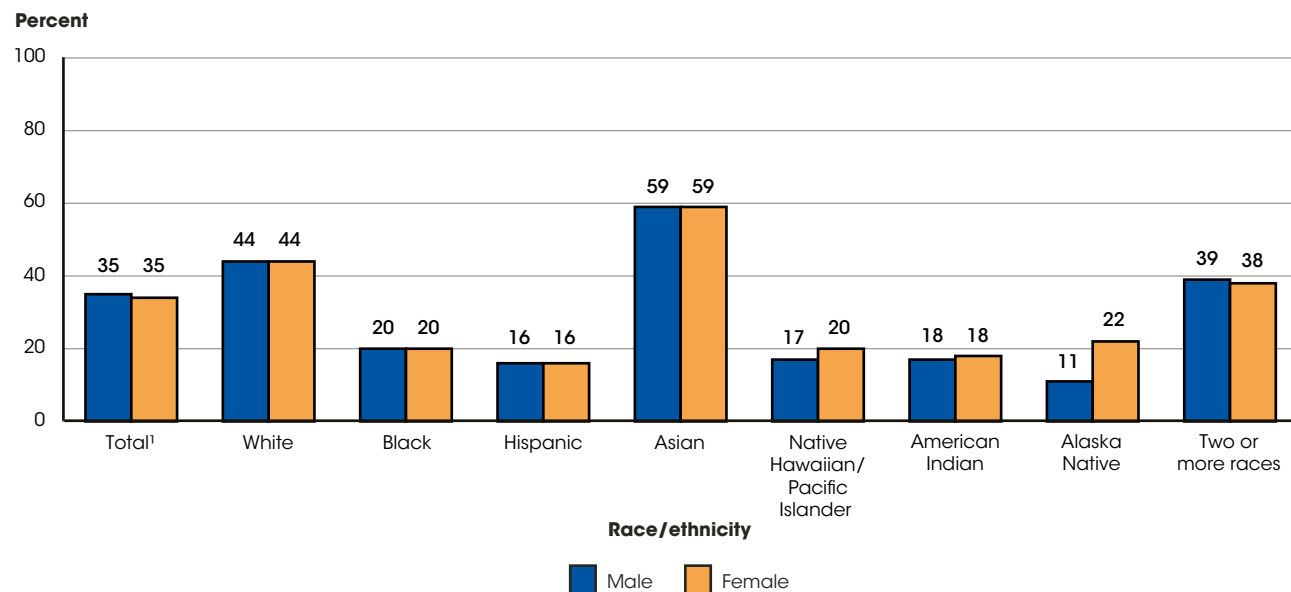
<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Parent education reflects the highest level of education attained by any parent residing with the child. Parents include adoptive and step-parents but exclude nonresidential parents. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

**Figure 2-2. Percentage of children ages 6–18 whose parents' highest level of educational attainment was a bachelor's degree or higher, by child's race/ethnicity and sex: 2010**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Parent education reflects the highest level of education attained by any parent residing with the child. Parents include adoptive and step-parents but exclude nonresidential parents. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

(27 percent), Hispanics (25 percent), and American Indians (25 percent) had parents who completed high school as their highest level of education compared with Whites (18 percent), Asians (13 percent), and children of two or more races (17 percent). The percentage for Alaska Native children was also higher than the percentages for Black and Hispanic children.

The percentage of Asian children (59 percent) who had parents with at least a bachelor's degree was higher than

the percentages of children of all other racial/ethnic groups. The percentages of Asian, White (44 percent), and children of two or more races (38 percent) who had parents with a bachelor's degree or higher were larger than the corresponding percentages of Black (20 percent), Hispanic (16 percent), Native Hawaiian/Pacific Islander (18 percent), American Indian (18 percent), and Alaska Native children (16 percent).

## Technical Notes

Parent education reflects the highest level of education attained by any parent residing with the child.

Parents include adoptive and step-parents but exclude nonresidential parents.

**Table 2-1. Percentage distribution of children ages 6–18, by parents’ highest level of educational attainment and child’s sex and race/ethnicity: 2010**

Sex and race/ethnicity	Less than high school completion	High school completion <sup>1</sup>	Some college	Associate’s degree	Bachelor’s or higher degree			
					Total	Bachelor’s degree	Master’s degree	Doctor’s or first-professional degree
<b>Total<sup>2</sup></b>	<b>11.1</b>	<b>20.5</b>	<b>23.1</b>	<b>10.3</b>	<b>34.9</b>	<b>20.4</b>	<b>9.9</b>	<b>4.6</b>
<b>Sex</b>								
Male	11.1	20.5	23.1	10.3	35.0	20.6	9.8	4.6
Female	11.2	20.6	23.0	10.4	34.8	20.2	10.0	4.6
<b>Race/ethnicity</b>								
White	3.8	17.7	22.4	11.7	44.3	25.6	12.9	5.9
Black	11.2	26.9	31.2	10.4	20.3	12.8	5.8	1.7
Hispanic	30.6	25.4	21.0	7.2	15.8	10.5	3.7	1.7
Asian	9.8	13.1	11.4	7.1	58.6	29.8	17.1	11.7
Native Hawaiian/Pacific Islander	5.0	30.3	32.6	14.1	18.1	14.2	2.2!	1.7!
American Indian/Alaska Native <sup>3</sup>	10.7	26.1	33.5	10.9	18.8	13.6	3.9	1.3
American Indian	11.0	25.4	33.9	11.4	18.3	13.5	3.8	1.0
Alaska Native	6.7!	37.2	33.4	6.3!	16.4	12.2	2.8!	‡
Two or more races	5.4	17.1	27.0	12.1	38.3	21.5	11.0	5.8
<b>Race/ethnicity by sex</b>								
<b>Male</b>								
White	3.7	17.7	22.6	11.6	44.4	25.9	12.6	5.9
Black	11.0	26.9	31.0	10.7	20.3	12.8	5.8	1.8
Hispanic	30.7	25.4	20.9	7.1	15.9	10.4	3.8	1.7
Asian	10.3	12.7	11.4	7.1	58.5	30.4	16.9	11.3
Native Hawaiian/Pacific Islander	5.3	33.2	30.3	14.7	16.5	13.1	2.0!	1.4!
American Indian/Alaska Native <sup>3</sup>	10.7	26.5	34.3	10.2	18.3	12.9	3.9	1.5
American Indian	11.1	25.6	34.5	10.6	18.2	13.0	4.0	1.2
Alaska Native	9.1!	38.2	35.6	5.7!	11.4	6.9!	3.5!	‡
Two or more races	5.4	16.8	27.2	11.5	39.0	21.6	11.6	5.9
<b>Female</b>								
White	3.9	17.8	22.3	11.8	44.3	25.3	13.1	5.9
Black	11.5	26.9	31.3	10.0	20.3	12.9	5.8	1.7
Hispanic	30.5	25.3	21.1	7.3	15.8	10.5	3.6	1.7
Asian	9.4	13.5	11.3	7.2	58.7	29.2	17.3	12.1
Native Hawaiian/Pacific Islander	4.6!	26.4	35.6	13.2	20.3	15.6	2.6!	‡
American Indian/Alaska Native <sup>3</sup>	10.7	25.7	32.6	11.6	19.4	14.4	4.0	1.0
American Indian	10.9	25.2	33.4	12.2	18.4	14.0	3.5	0.8!
Alaska Native	4.1!	36.2	31.1	‡	21.6	17.8	‡	‡
Two or more races	5.5	17.4	26.8	12.8	37.6	21.5	10.4	5.7

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes high school diploma or equivalent.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or not specified.

NOTE: Parent education reflects the highest level of education attained by any parent residing with the child. Parents include adoptive and step-parents but exclude nonresidential parents. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

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## Indicator 3 Parent Involvement in Education

In 2007, a higher percentage of female than male students had parents who reported participation in such school-related activities as attending a school or class event or volunteering or serving on a school committee. However, a higher percentage of males than females had parents who attended regularly scheduled parent-teacher conferences.

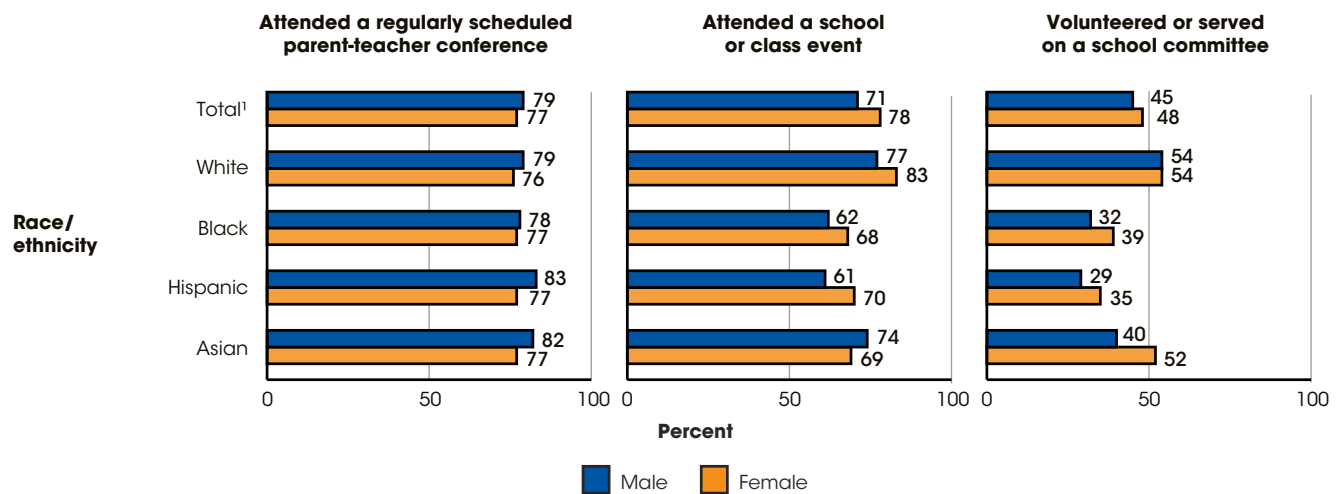
In 2007, about 89 percent of students in kindergarten through 12th grade had parents who reported attending a general school or PTO/PTA meeting. Some 78 percent of students had parents who reported attending regularly scheduled parent-teacher conferences; 74 percent had parents who reported attending a school or class event; 65 percent had parents who reported participating in school fundraising; and 46 percent had parents who reported volunteering or serving on a school committee.

A higher percentage of males than females had parents who attended regularly scheduled parent-teacher conferences (79 vs. 77 percent); by comparison, a lower percentage of male than female students had parents who attended school or class events (71 vs. 78 percent) or who volunteered or served on a school committee (45 vs. 48 percent). These differences by sex were also observed for White and Hispanic students with one exception: no measurable differences were found between the percentages of White male and White female

students whose parents volunteered or served on a school committee.

Parental participation in some school-related activities varied by race/ethnicity. A higher percentage of White students than Black and Hispanic students had parents who reported participation in such school-related activities as attending a school or class event, volunteering or serving on a school committee, or participating in school fundraising. These racial/ethnic differences in parents' participation in the three school-related activities were also observed for males as well as females. For example, 77 percent of White males had parents who reported attending a school or class event, compared with 62 percent of Black males and 61 percent of Hispanic males. Some 83 percent of White females had parents who reported attending a school or class event, compared with 70 percent of Hispanic females and 68 percent of Black females. In addition, the percentage of female students whose parents reported attending a school or class event

**Figure 3-1. Percentage of students in grades K through 12 whose parents reported attending a regularly scheduled parent-teacher conference, attending a school or class event, and volunteering or serving on a school committee, by race/ethnicity and sex: 2007**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native males were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

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



was higher for American Indian/Alaska Native females (93 percent) than White females (83 percent), Hispanic females (70 percent), Asian females (69 percent), and Black females (68 percent).

By comparison, no measurable differences between racial/ethnic groups were observed in the overall percentages

of students whose parents attended regularly scheduled parent-teacher conferences. This racial/ethnic pattern was also observed for males as well as females, with one exception: a higher percentage of Hispanic males than White males had parents who attended regularly scheduled conferences (83 vs. 79 percent).

### Technical Notes

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In this indicator, parent participation indicates participation in school activities by a parent or other household member. Reporting standards for Native

Hawaiian/Pacific Islander students were not met; therefore, data for this group are not discussed in the text.

**Table 3-1. Percentage of students in grades K through 12 whose parents reported participation in school-related activities, by sex and race/ethnicity: 2007**

Sex and race/ethnicity	Number of students (in thousands)	Participation in school activities by parent or other household member				
		Attended a general school or PTO/PTA meeting	Attended a regularly scheduled parent-teacher conference	Attended a school or class event	Volunteered or served on a school committee	Participated in school fundraising
<b>Total<sup>1</sup></b>	<b>51,596</b>	<b>89.4</b>	<b>78.1</b>	<b>74.5</b>	<b>46.4</b>	<b>65.3</b>
<b>Sex</b>						
Male	26,872	89.3	79.2	71.5	44.8	64.7
Female	24,723	89.6	76.8	77.7	48.1	65.8
<b>Race/ethnicity</b>						
White	29,830	91.0	77.8	80.1	54.2	72.5
Black	7,837	86.7	77.3	64.7	35.0	57.8
Hispanic	9,765	86.8	80.2	65.0	31.8	50.6
Asian	1,383	91.0	79.9	71.4	45.8	60.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	372	94.2	79.7	80.8	58.4	49.5
<b>Race/ethnicity by sex</b>						
<b>Male</b>						
White	15,361	91.2	79.1	77.4	54.3	72.2
Black	4,323	84.1	77.7	62.1	31.6	56.9
Hispanic	5,117	87.2	82.7	60.8	29.1	50.7
Asian	719	88.9	82.3	73.7	40.0	61.4
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡
<b>Female</b>						
White	14,469	90.6	76.3	82.9	54.0	72.8
Black	3,514	89.9	76.9	67.9	39.1	58.9
Hispanic	4,648	86.2	77.4	69.6	34.7	50.5
Asian	663	93.2	77.2	68.9	52.1	59.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	234 !	95.2	80.8	93.1	70.3	46.3 !

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

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

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## Indicator 4

# Language Minority School-Age Children

*In 2010, the percentage of school-age children who spoke a language other than English at home and spoke English with difficulty was higher for Hispanics (16 percent) and Asians (15 percent) than for Alaska Natives (7 percent), Native Hawaiians/Pacific Islanders (5 percent), American Indians (2 percent), children of two or more races (2 percent), Whites (1 percent), and Blacks (1 percent).*

In 2010, some 11.8 million school-age children (children ages 5 to 17), making up 22 percent of the total school-age population, spoke a language other than English at home; among them, 2.7 million (5 percent of the school-age population) spoke English with difficulty. Specifically, about 7 percent of children ages 5–9 and 4 percent of children ages 10–17 spoke a language other than English at home and spoke English with difficulty.

In 2010, the percentage of school-age children who spoke a language other than English at home and spoke English with difficulty was higher for Hispanics (16 percent) and Asians (15 percent) than for Alaska Natives (7 percent), Native Hawaiians/Pacific Islanders (5 percent), American Indians (2 percent), children of two or more races (2 percent), Whites (1 percent), and Blacks (1 percent). These racial/ethnic differences were also observed for males as well as females. Specifically, among male school-age children, 16 percent each of Hispanics and Asians spoke a language other than English at home and spoke English with difficulty, compared with 6 percent of Alaska Natives, 4 percent of Native Hawaiians/Pacific Islanders, 2 percent of males of two or more races, and 1 percent each of Whites, Blacks, and American

Indians. Among female school-age children, 15 percent of Hispanics and 14 percent of Asians spoke a language other than English at home and spoke English with difficulty, compared with 9 percent of Alaska Natives, 5 percent of Native Hawaiians/Pacific Islanders, 2 percent each of American Indians and female children of two or more races, and 1 percent each of Whites and Blacks.

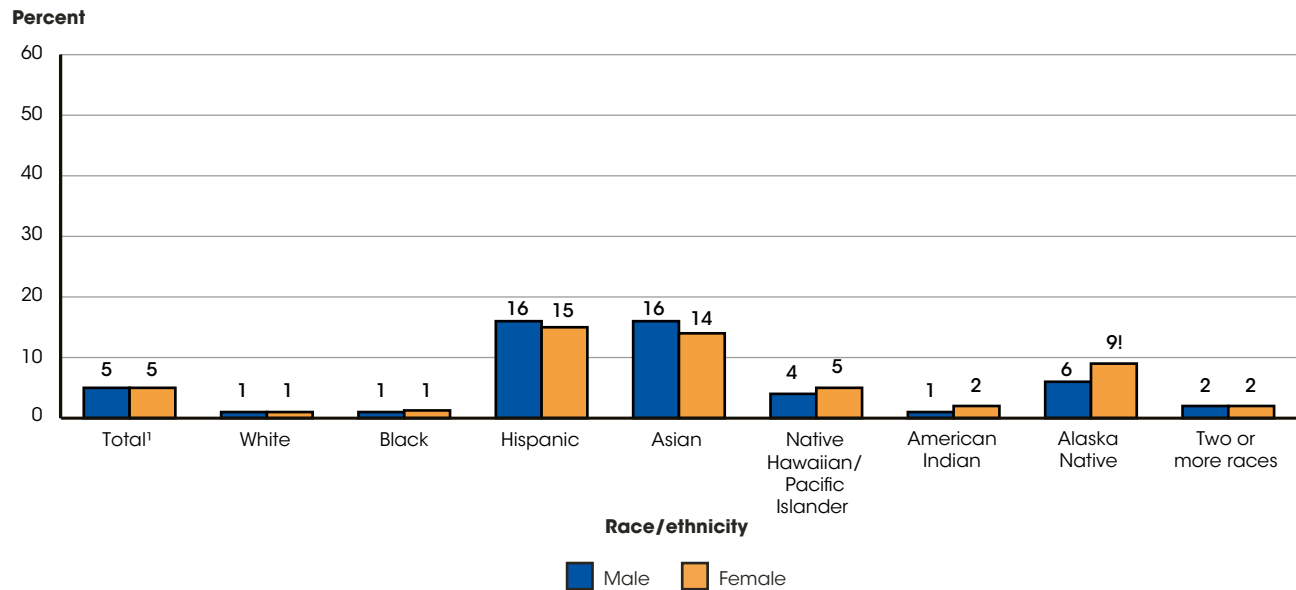
A higher percentage of males than females spoke a language other than English at home and spoke English with difficulty, although the difference was less than 1 percentage point. The percentage of school-age children who spoke a language other than English at home and spoke English with difficulty was higher for Asian males than Asian females (16 vs. 14 percent). This difference was also observed between Hispanic males and Hispanic females (16 vs. 15 percent). No measurable differences were found between males and females within other racial/ethnic groups. In addition, a higher percentage of Hispanic school-age children born outside of the United States spoke a non-English language at home and spoke English with difficulty than did their counterparts born within the United States (35 vs. 13 percent).

### Technical Notes

Respondents were asked whether each child in the household spoke a language other than English at home. If they answered “yes,” they were asked how well each child could speak English using the following categories: “very well,” “well,” “not well,” and “not at all.” All

children who were reported to speak English less than “very well” were considered to have difficulty speaking English. A Spanish-language version of the American Community Survey (ACS) was available to respondents.

**Figure 4-1. Percentage of children ages 5–17 who spoke a language other than English at home and who spoke English with difficulty, by race/ethnicity and sex: 2010**



<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Respondents were asked whether each child in the household spoke a language other than English at home. If they answered "yes," they were asked how well each child could speak English using the following categories: "very well," "well," "not well," and "not at all." All children who were reported to speak English less than "very well" were considered to have difficulty speaking English. A Spanish-language version of the American Community Survey (ACS) was available to respondents. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

**Table 4-1. Number and percentage of children ages 5-17 who spoke a language other than English at home and who spoke English with difficulty, by sex, race/ethnicity, and nativity: 2010**

[Numbers in thousands]

Sex, race/ethnicity, and nativity	Total population	Spoke a language other than English at home							
		Number	Percent	Spoke English with difficulty					
				Total		Ages 5-9		Ages 10-17	
				Number	Percent	Number	Percent	Number	Percent
<b>Total<sup>1</sup></b>	<b>54,037</b>	<b>11,774</b>	<b>21.8</b>	<b>2,710</b>	<b>5.0</b>	<b>1,418</b>	<b>6.9</b>	<b>1,292</b>	<b>3.8</b>
Sex									
Male	27,693	5,927	21.4	1,420	5.1	736	7.1	684	3.9
Female	26,344	5,847	22.2	1,290	4.9	682	6.8	608	3.7
Race/ethnicity									
White	29,421	1,653	5.6	325	1.1	138	1.3	186	1.0
Black	7,645	467	6.1	101	1.3	36	1.3	65	1.3
Hispanic	12,093	7,886	65.2	1,878	15.5	1,050	21.6	828	11.4
Asian	2,314	1,455	62.9	353	15.3	169	18.5	183	13.1
Native Hawaiian/Pacific Islander	94	28	29.7	4	4.7	2	4.8	3	4.7
American Indian/Alaska Native <sup>2</sup>	420	63	15.0	9	2.1	3	2.1	6	2.1
American Indian	340	48	14.2	5	1.6	2	1.5	4	1.7
Alaska Native	28	8	27.2	2	7.5	1 !	6.6 !	1	8.0
Two or more races	1,922	184	9.6	33	1.7	16	1.9	17	1.5
Race/ethnicity by sex									
Male									
White	15,113	817	5.4	161	1.1	70	1.3	91	1.0
Black	3,903	222	5.7	50	1.3	18	1.3	32	1.3
Hispanic	6,206	3,990	64.3	993	16.0	551	22.2	441	11.9
Asian	1,168	742	63.5	191	16.3	87	19.4	104	14.4
Native Hawaiian/Pacific Islander	52	15	29.3	2	4.3	1 !	4.8 !	1 !	4.0 !
American Indian/Alaska Native <sup>2</sup>	213	32	15.1	4	1.8	1	1.4	3	2.0
American Indian	172	25	14.5	2	1.2	1 !	0.8 !	2	1.5
Alaska Native	14	4	25.0	1	6.3	#	5.0 !	1 !	7.2 !
Two or more races	972	87	9.0	16	1.7	7	1.8	9	1.5

See notes at end of table.

**Table 4-1. Number and percentage of children ages 5-17 who spoke a language other than English at home and who spoke English with difficulty, by sex, race/ethnicity, and nativity: 2010—Continued**

[Numbers in thousands]

Sex, race/ethnicity, and nativity	Total population	Spoke a language other than English at home								
		Number	Percent	Spoke English with difficulty						
				Total		Ages 5-9		Ages 10-17		
				Number	Percent	Number	Percent	Number	Percent	
<b>Total<sup>1</sup></b>	<b>54,037</b>	<b>11,774</b>	<b>21.8</b>	<b>2,710</b>	<b>5.0</b>	<b>1,418</b>	<b>6.9</b>	<b>1,292</b>	<b>3.8</b>	
Race/ethnicity by sex										
Female										
White	14,308	836	5.8	163	1.1	69	1.3	95	1.1	
Black	3,741	245	6.5	52	1.4	19	1.4	33	1.4	
Hispanic	5,887	3,896	66.2	885	15.0	499	21.0	386	11.0	
Asian	1,145	712	62.2	162	14.2	83	17.7	79	11.7	
Native Hawaiian/Pacific Islander	43	13	30.1	2	5.1	1 !	4.6 !	1 !	5.4 !	
American Indian/Alaska Native <sup>2</sup>	207	31	14.9	5	2.5	2	2.9	3	2.2	
American Indian	169	23	13.9	3	2.0	1 !	2.2 !	2	1.9	
Alaska Native	13	4	29.6	1 !	8.8 !	#	9.0 !	1 !	8.7 !	
Two or more races	950	97	10.2	16	1.7	8	2.0	8	1.5	
Nativity										
Hispanic or Latino										
Born within the United States <sup>3</sup>	10,800	6,647	61.6	1,419	13.1	916	20.0	503	8.1	
Born outside of the United States	1,293	1,239	95.8	459	35.5	134	48.3	325	32.0	

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> Includes persons reporting American Indian only, Alaska Native only, and persons from American Indian and/or Alaska Native tribes specified or not specified.

<sup>3</sup> Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Marianas. Also includes those born abroad of American parents.

NOTE: Respondents were asked whether each child in the household spoke a language other than English at home. If they answered "yes," they were asked how well each child could speak English using the following categories: "very well," "well," "not well," and "not at all." All children who were reported to speak English less than "very well" were considered to have difficulty speaking English. A Spanish-language version of the American Community Survey (ACS) was available to respondents. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

## Indicator 5 Special Needs

*Among 9th-grade students in 2009, a higher percentage of males (13 percent) than females (7 percent) received special education services.*

In 2009, about 10 percent of 9th-grade students received special education services. A higher percentage of male (13 percent) than female (7 percent) students received special education services. This pattern was also found among males and females for Whites (13 vs. 8 percent), Blacks (16 vs. 7 percent), Hispanics (12 vs. 6 percent), and students of two or more races (14 vs. 7 percent).

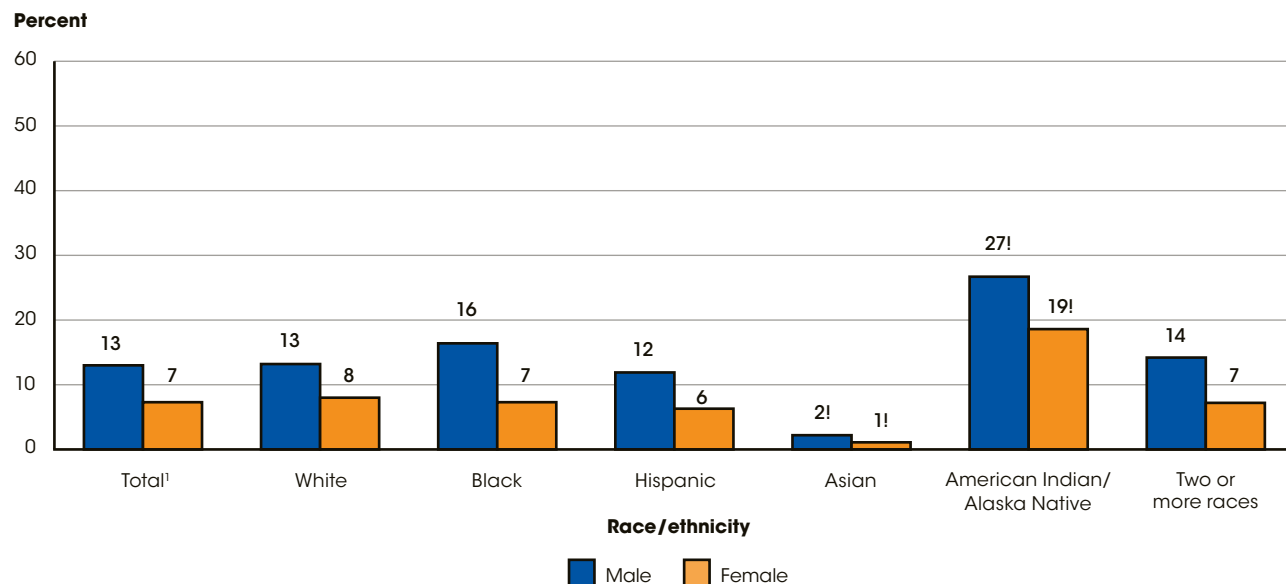
Differences in the receipt of special education services were also found across racial/ethnic groups. A higher percentage of American Indians/Alaska Natives (23 percent) than Whites (11 percent), Blacks (11 percent), Hispanics (9 percent), Asians (2 percent), and students of two or more races (11 percent) received special education services. Among male students, a higher percentage of American Indian/Alaska Natives (27 percent), Whites (13 percent), Blacks (16 percent), Hispanics (12 percent), and males of two or more races (14 percent) received special education services than Asian males (2 percent). Among female students, no statistically significant differences were found between American Indians/Alaska

Natives and other racial/ethnic groups, partially due to small sample sizes. A higher percentage of Whites (8 percent), Blacks (7 percent), Hispanics (6 percent), and females of two or more races (7 percent) received special education services than Asian females (1 percent).

Using a different data source and year, this indicator also examines 12- to 17-year-olds who have ever been diagnosed with a learning disability. In 2008, about 9 percent of 12- to 17-year-olds had ever been diagnosed with a learning disability, with a higher percentage of 12- to 17-year-old males than females (11 vs. 7 percent) diagnosed. This pattern was also found among males and females for Whites (14 vs. 8 percent) and Blacks (11 vs. 7 percent).

Among these data on 12- to 17-year-olds, few differences in learning diagnosis rates were found across racial/ethnic groups possibly due, in part, to small sample sizes. In 2008, a higher percentage of 12- to 17-year-old Whites (11 percent) than 12- to 17-year-old Hispanics

**Figure 5-1. Percentage of students receiving special education services in 9th grade, by race/ethnicity and sex: 2009**



<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

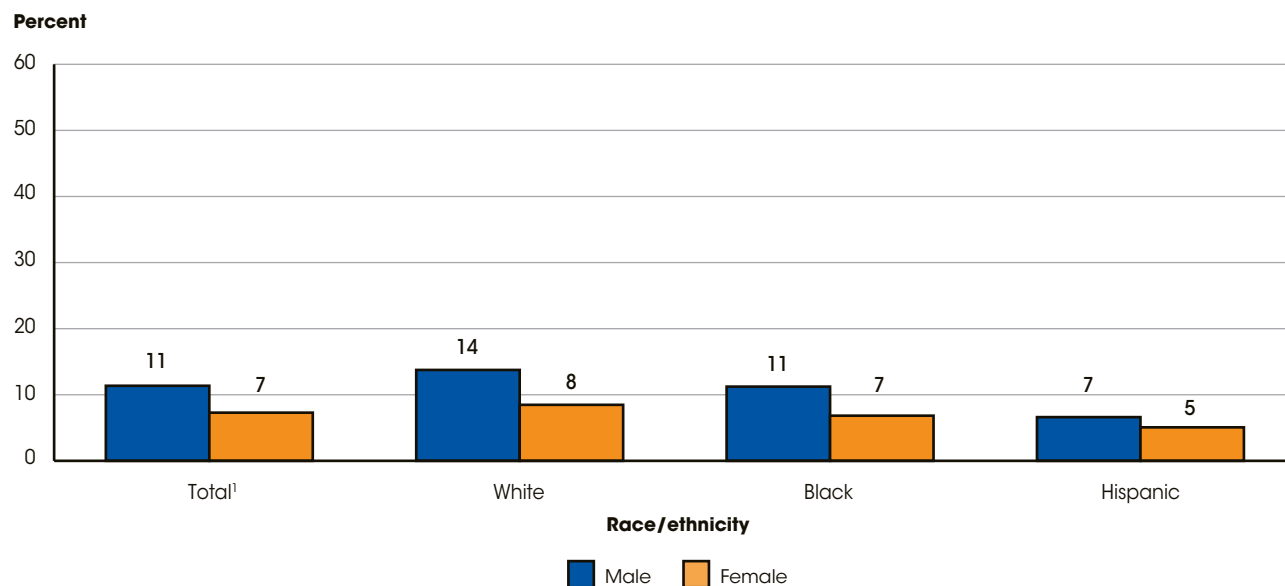
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. These data are based on parent reports and are weighted by the W1PARENT variable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.



**Figure 5-2. Percentage of children ages 12-17 ever having been diagnosed with a learning disability, by race/ethnicity and sex: 2008**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Asians, American Indians/Alaska Natives, and two or more races were not met; therefore, data for these groups are not shown in the figure. "Learning disability" is based on parent responses to the question "Has a representative from a school or a health professional ever told you that [child's name] had a learning disability?" Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, National Health Interview Survey, 2008.

(6 percent) had ever been diagnosed with a learning disability. In addition, 9 percent of Black youth had ever been diagnosed with a learning disability. No measurable differences in learning diagnosis rates were found between Black youths and White or Hispanic youths.

The percentage of 12- to 17-year-olds ever diagnosed with a learning disability in 2008, overall and by sex, were not measurably different from those in 1999.

## Technical Notes

Data on children diagnosed with learning disabilities are based on parent responses to the question "Has a

representative from a school or a health professional ever told you that [child's name] had a learning disability?"

**Table 5-1. Percentage of students receiving special education services in 9th grade, by race/ethnicity and sex: 2009**

Sex	Total	White	Black	Hispanic	Asian	Native Hawaiian/ Pacific Islander	American Indian/ Alaska Native	Two or more races
<b>Total<sup>1</sup></b>	<b>10.2</b>	<b>10.7</b>	<b>11.3</b>	<b>9.1</b>	<b>1.6</b>	‡	<b>23.1</b>	<b>10.6</b>
Sex								
Male	13.0	13.2	16.4	11.9	2.2 !	‡	26.7 !	14.2
Female	7.3	8.0	7.3	6.3	1.1 !	‡	18.6 !	7.2

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: These data are based on parent reports and are weighted by the W1PARENT variable. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.

**Table 5-2. Percentage of children ages 12-17 ever having been diagnosed with a learning disability, by sex and race/ethnicity: Selected years, 1999–2008**

Sex and race/ethnicity	1999	2002	2005	2008
<b>Total<sup>1</sup></b>	<b>9.6</b>	<b>10.5</b>	<b>9.2</b>	<b>9.4</b>
Sex				
Male	13.0	13.8	11.0	11.4
Female	6.0	7.1	7.4	7.3
Race/ethnicity				
White	10.4	11.0	9.3	11.2
Black	10.3	12.6	10.8	9.1
Hispanic	6.4	7.0	8.2	5.9
Asian	‡	#	‡	‡
Native Hawaiian/Pacific Islander	—	—	—	—
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	‡	‡	‡	‡
Race/ethnicity by sex				
Male				
White	14.0	14.1	10.8	13.8
Black	13.9	17.7	14.5	11.2
Hispanic	8.7	9.1	10.2	6.6
Asian	‡	#	‡	‡
Native Hawaiian/Pacific Islander	—	—	—	—
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	‡	‡	‡	‡
Female				
White	6.5	7.8	7.7	8.5
Black	6.7	7.2	7.2	6.8
Hispanic	3.9	5.0	6.2	5.1
Asian	‡	#	#	#
Native Hawaiian/Pacific Islander	—	—	—	—
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	‡	‡	‡	‡

— Not available.

# Rounds to zero.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: "Learning disability" is based on parent responses to the question "Has a representative from a school or a health professional ever told you that [child's name] had a learning disability?" Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics, National Health Interview Survey, 1999, 2002, 2005, and 2008.



# Chapter 2

## Characteristics of Schools

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Although individual student characteristics have been shown to influence academic indicators—such as high school and college completion rates (Adelman 2006; Brady, Owings, and Quinn 1992; Brooks-Gunn and Duncan 1997; Horn and Berkold 1999; Nunez and Cuccaro-Alamin 1998)—school-level factors (e.g., school poverty and segregation) may also contribute to differences in educational outcomes for males and females within and across racial/ethnic groups. For example, using the percentage of a school's enrollment that is eligible for the National School Lunch Program's free or reduced-price lunch (FRPL) as the measure of school poverty, in 2007–08 some 68 percent of 12th-graders in high-poverty schools graduated with a diploma, compared with 91 percent of 12th-graders in low-poverty schools (Aud et al. 2010). Also in that year, about 28 percent of high school graduates from high-poverty schools attended a 4-year institution after graduation, compared with 52 percent of high school graduates from low-poverty schools.

The concentration of various racial/ethnic groups at high-poverty and other schools is also important to consider when examining educational outcomes. In 2007–08, for instance, about 14 percent of students attending high-poverty elementary schools were White, 34 percent were Black, 46 percent were Hispanic, 4 percent were Asian/Pacific Islander, and 2 percent were American Indian/Alaska Native. At low-poverty elementary schools, average student enrollment was 75 percent White, 6 percent Black, 11 percent Hispanic, 7 percent Asian/Pacific Islander, and 1 percent American Indian/Alaska Native (Aud et al. 2010). Some studies suggest that the number of schools serving mostly racial/ethnic minorities and lower income students is increasing and that these schools tend to be organized and operated differently than those serving higher income or predominantly White students (Clotfelter 2001, 2004; Frankenberg et al. 2003; Rumberger and Palardy 2005).

There is further evidence that school-level socioeconomic status (SES) may have a greater effect on academic growth and achievement than does individual student-level SES. (Rumberger and Palardy 2005). However, school policies and practices, such as academic climate and teacher expectations, can serve to either mitigate or increase the magnitude of SES effects. For example, high schools that offer the opportunity for students to take advanced coursework may provide an advantage for students in terms of college persistence. In a study by Horn and Kojaku (2001), students who completed rigorous high school curricula exhibited greater persistence in postsecondary education than their counterparts who completed core curricula or lower, even when all family background characteristics, indicators of socioeconomic status, and selectivity of first postsecondary institution attended were taken into consideration. Another important school program—high school guidance counseling—has received attention for its potential to influence college going for historically underrepresented students. Research has shown an association between students' consistent, frequent contact with guidance counselors and higher levels of high school achievement, college aspirations, and financial aid knowledge (McDonough 2005; Plank and Jordan 2001).

Other school-level characteristics are associated with positive and negative educational outcomes for student subgroups. For example, schools with higher proportions of low-income and minority students—including those with special needs or with limited English proficiency—less frequently make adequate yearly progress (AYP) than schools with lower proportions of such students (U.S. Department of Education 2010).<sup>2</sup> To address achievement gaps, school districts and states are beginning to experiment with the use of special schools such as magnet and charter schools in an attempt to overcome these academic challenges with diverse student populations.

To further examine school-level characteristics, chapter 2 investigates the extent to which males and females (within and across racial/ethnic groups) attend alternative, charter, and magnet schools; high-poverty schools; and high-performing schools. Student access to rigorous coursework and guidance programs that provide assistance with college planning and admission are also explored.

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<sup>2</sup> The No Child Left Behind Act of 2001 (NCLB) is designed to ensure that all children reach proficiency in reading and mathematics by the 2013–14 school year. Since its adoption, schools have been accountable for meeting adequate yearly progress (AYP)—the minimum level of improvement that public schools must attain each year under the Elementary and Secondary Education Act (ESEA).

## Indicator 6 Segregation and Poverty in Schools

*Enrollment at high-poverty public schools was higher in school year 2010–11 for Black (41 percent), Hispanic (38 percent), and American Indian/Alaska Native students (31 percent) than it was for Pacific Islander (19 percent), Asian (15 percent), and White (6 percent) students.*

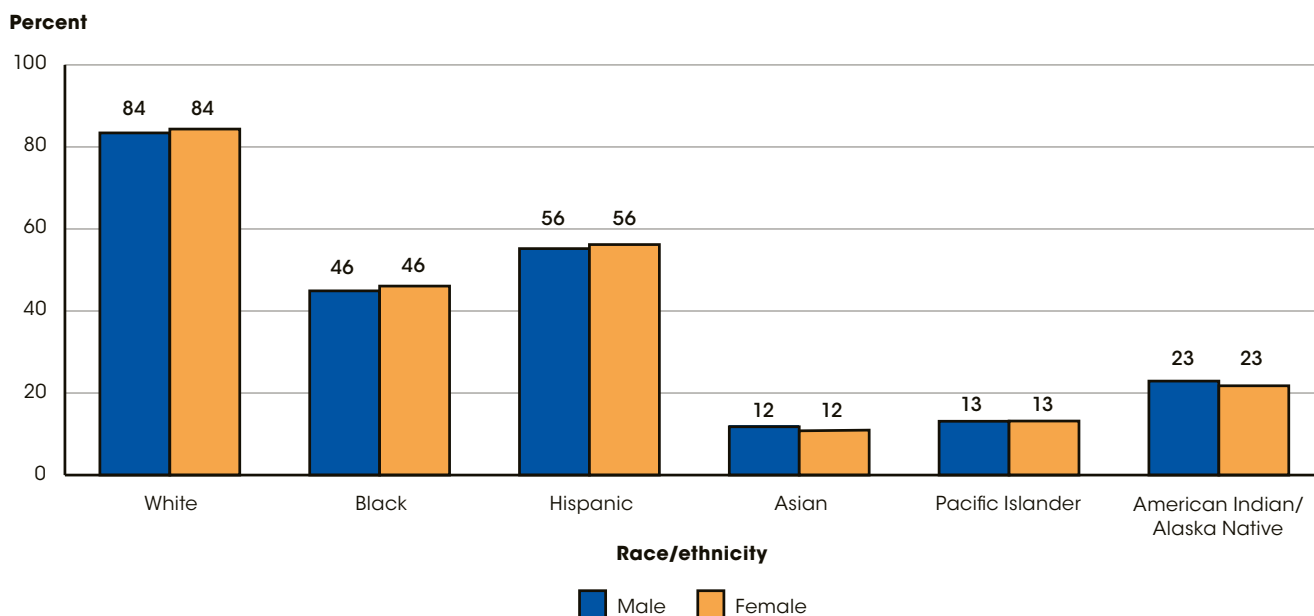
In school year 2010–11, over 49 million students were enrolled in public elementary and secondary schools; 52 percent of these students were White, 16 percent were Black, 23 percent were Hispanic, 5 percent were Asian, less than 1 percent were Pacific Islander, 1 percent were American Indian/Alaska Native, and 2 percent were of two or more races. Examining the composition of public elementary and secondary schools in terms of racial/ethnic and poverty concentration provides a picture of the extent to which students in certain racial/ethnic groups may be racially and/or economically isolated.

Looking at enrollment patterns by students' race/ethnicity, 84 percent of White students attended a predominantly White school (a school where at least 50 percent of the students were White), 46 percent of Black students attended a predominantly Black school, 56 percent of Hispanic students attended a predominantly Hispanic school, 12 percent of Asians attended a predominantly Asian school, 13 percent of Pacific Islander students attended a predominantly Pacific Islander school, and 23 percent of American Indian/Alaska Native students attended a predominantly American Indian/

Alaska Native school. Racial/ethnic enrollment patterns classified by sex were similar to the overall racial/ethnic patterns outlined above.

Concerning school poverty, 24 percent of all students attended schools where 25 percent or fewer students were eligible for free or reduced-price lunch (hereafter low-poverty schools), 56 percent attended schools where between 26 and 75 percent of students were eligible, and 20 percent attended schools where more than 75 percent of students were eligible (hereafter high-poverty schools). Higher percentages of Asian students (39 percent), White students (33 percent), and students of two or more races (25 percent) attended a low-poverty school than did students in other racial/ethnic groups (between 9 and 14 percent). Conversely, higher percentages of Black (41 percent), Hispanic (38 percent), and American Indian/Alaska Native students (31 percent) attended a high-poverty school than did their peers who were Pacific Islander (19 percent), of two or more races (16 percent), Asian (15 percent), and White (6 percent). Racial/ethnic enrollment patterns classified by sex were similar to the overall racial/ethnic patterns outlined above.

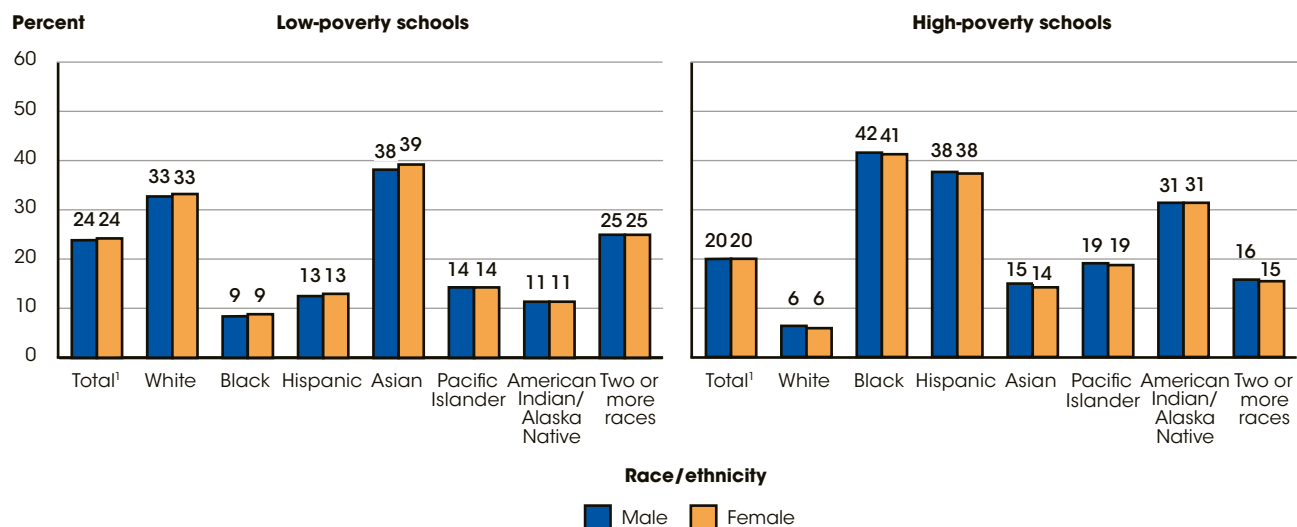
**Figure 6-1. Percentage of White, Black, Hispanic, Asian, Pacific Islander, and American Indian/Alaska Native students in public elementary and secondary schools that enroll 50 percent or more students of their respective racial or ethnic group, by sex: School year 2010–11**



NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010–11.

**Figure 6-2. Percentage of students in low- and high-poverty public elementary and secondary schools, by race/ethnicity and sex: School year 2010-11**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Low-poverty schools are those where 25 percent or fewer students were eligible for free or reduced-price lunch; high-poverty schools are those where more than 75 percent of students were eligible for free or reduced-price lunch. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010-11.

**Table 6-1. Percentage of public elementary and secondary school students enrolled in schools with 50 percent or more enrollment of specific racial/ethnic groups, by sex and race/ethnicity: 2010-11**

Sex and race/ethnicity	White enrollment <sup>1</sup>			Black enrollment <sup>1</sup>			Hispanic enrollment <sup>1</sup>		
	Total, 50 percent or more	50-75 percent	More than 75 percent	Total, 50 percent or more	50-75 percent	More than 75 percent	Total, 50 percent or more	50-75 percent	More than 75 percent
<b>Total<sup>2</sup></b>	<b>56.6</b>	<b>22.8</b>	<b>33.7</b>	<b>9.5</b>	<b>4.4</b>	<b>5.1</b>	<b>17.3</b>	<b>8.7</b>	<b>8.5</b>
Sex									
Male	56.6	22.8	33.8	9.5	4.4	5.1	17.3	8.8	8.5
Female	56.5	22.8	33.7	9.6	4.4	5.2	17.3	8.7	8.6
Race/ethnicity									
White	84.2	27.5	56.7	2.0	1.6	0.3	3.6	2.9	0.8
Black	23.5	17.0	6.5	45.8	16.9	29.0	9.1	7.2	2.0
Hispanic	21.0	14.6	6.4	3.6	2.7	0.9	56.2	23.4	32.9
Asian	39.9	25.7	14.2	3.1	2.3	0.8	12.1	8.9	3.1
Pacific Islander	27.3	16.2	11.1	2.2	1.4	0.7	13.2	9.7	3.6
American Indian/ Alaska Native	46.7	28.1	18.6	2.7	1.9	0.8	9.4	6.3	3.1
Two or more races	57.7	32.8	24.9	6.8	4.7	2.1	8.1	6.2	1.9
Race/ethnicity by sex									
Male									
White	84.0	27.4	56.5	2.0	1.7	0.4	3.7	2.9	0.8
Black	23.7	17.0	6.6	45.6	16.8	28.7	9.2	7.2	2.0
Hispanic	21.0	14.6	6.4	3.6	2.7	0.9	56.2	23.4	32.8
Asian	39.0	25.5	13.5	3.2	2.4	0.8	12.4	9.2	3.2
Pacific Islander	27.1	16.0	11.1	2.1	1.4	0.7	13.3	9.6	3.7
American Indian/ Alaska Native	46.8	28.2	18.6	2.7	1.9	0.8	9.4	6.3	3.1
Two or more races	57.7	32.7	25.0	6.7	4.6	2.0	8.2	6.3	2.0
Female									
White	84.4	27.5	56.8	1.9	1.6	0.3	3.6	2.8	0.7
Black	23.3	17.0	6.4	46.1	16.9	29.2	9.1	7.1	1.9
Hispanic	21.0	14.6	6.4	3.5	2.6	0.9	56.3	23.4	32.9
Asian	40.9	25.9	15.0	3.0	2.3	0.7	11.7	8.7	3.0
Pacific Islander	27.4	16.4	11.0	2.2	1.4	0.8	13.2	9.7	3.5
American Indian/ Alaska Native	46.6	28.0	18.6	2.8	1.9	0.8	9.4	6.2	3.2
Two or more races	57.6	32.9	24.7	6.9	4.8	2.1	8.0	6.1	1.9

See notes at end of table.



**Table 6-1. Percentage of public elementary and secondary school students enrolled in schools with 50 percent or more enrollment of specific racial/ethnic groups, by sex and race/ethnicity: 2010-11—Continued**

Sex and race/ethnicity	Asian enrollment <sup>1</sup>			Pacific Islander enrollment <sup>1</sup>			American Indian/Alaska Native enrollment <sup>1</sup>			All other enrollment <sup>1</sup>
	Total, 50 percent or more	50-75 percent	More than 75 percent	Total, 50 percent or more	50-75 percent	More than 75 percent	Total, 50 percent or more	50-75 percent	More than 75 percent	
<b>Total<sup>2</sup></b>	<b>0.9</b>	<b>0.7</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>#</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>	<b>15.4</b>
Sex										
Male	0.9	0.7	0.1	0.1	0.1	#	0.3	0.1	0.2	15.4
Female	0.9	0.7	0.1	0.1	#	#	0.3	0.1	0.2	15.4
Race/ethnicity										
White	0.2	0.2	#	#	#	#	0.1	0.1	#	9.9
Black	0.2	0.2	#	#	#	#	#	#	#	21.3
Hispanic	0.5	0.5	#	#	#	#	0.1	#	#	18.6
Asian	11.9	9.6	2.3	0.2	0.2	#	#	#	#	32.7
Pacific Islander	6.3	6.2	0.2	13.1	8.8	4.4	0.1	0.1	#	37.7
American Indian/ Alaska Native	0.2	0.2	#	#	#	#	22.9	6.8	16.1	18.1
Two or more races	1.0	0.9	0.1	0.2	0.1	#	0.2	0.1	0.1	26.1
Race/ethnicity by sex										
Male										
White	0.2	0.2	#	#	#	#	0.1	0.1	#	10.0
Black	0.2	0.2	#	#	#	#	#	#	#	21.2
Hispanic	0.5	0.5	#	#	#	#	0.1	#	#	18.6
Asian	12.1	9.7	2.4	0.2	0.2	#	#	#	#	33.1
Pacific Islander	6.4	6.2	0.2	13.1	8.8	4.3	0.1	0.1	#	37.8
American Indian/ Alaska Native	0.2	0.2	#	#	#	#	22.9	6.8	16.1	18.0
Two or more races	1.0	1.0	0.1	0.2	0.1	#	0.2	0.1	0.1	26.0
Female										
White	0.2	0.2	#	#	#	#	0.1	0.1	#	9.9
Black	0.2	0.2	#	#	#	#	#	#	#	21.3
Hispanic	0.5	0.5	#	#	#	#	0.1	#	#	18.6
Asian	11.8	9.5	2.3	0.2	0.2	#	#	#	#	32.3
Pacific Islander	6.3	6.1	0.2	13.2	8.7	4.5	0.1	0.1	#	37.6
American Indian/ Alaska Native	0.2	0.2	#	#	#	#	22.9	6.9	16.0	18.1
Two or more races	1.0	0.9	0.1	0.1	0.1	#	0.2	0.1	0.1	26.2

# Rounds to zero.

<sup>1</sup> Enrollment columns for White, Black, Hispanic, Asian, Pacific Islander, and American Indian/Alaska Native provide the percentage of students who are enrolled in a school where students in the specified race or ethnicity group make up one of the following: 50 percent or more of that school's enrollment, 50-75 percent of that school's enrollment, or more than 75 percent of that school's enrollment. For example, 21 percent of Hispanic students in public elementary and secondary schools attend a school where 50 percent or more of the students are White, 15 percent attend a school where 50-75 percent of the students are White, and 6 percent attend a school where more than 75 percent of the students are White. The "All other enrollment" column provides the percentage of students enrolled in schools with racial/ethnic enrollment compositions other than 50 percent or more White, Black, Hispanic, Asian, Pacific Islander, or American Indian/Alaska Native.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table and students whose racial/ethnic group was not reported.

NOTE: Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010-11.

**Table 6-2. Number and percentage of public elementary and secondary school students and percentage distribution of students eligible for free or reduced-price lunch, by sex and race/ethnicity: School year 2010-11**

Sex and race/ethnicity	Number of students <sup>1</sup>	Percent of students <sup>1</sup>	Percentage distribution of students in school eligible for free or reduced-price lunch <sup>2</sup>				
			Total	25 percent or fewer	26-50 percent	51-75 percent	More than 75 percent
<b>Total<sup>3</sup></b>	<b>49,212,583</b>	<b>100.0</b>	<b>100.0</b>	<b>24.3</b>	<b>29.0</b>	<b>26.7</b>	<b>20.1</b>
<b>Sex</b>							
Male	25,277,620	51.4	100.0	24.2	28.9	26.7	20.1
Female	23,934,411	48.6	100.0	24.4	29.0	26.6	20.0
<b>Race/ethnicity</b>							
White	25,801,021	52.4	100.0	33.1	36.5	24.2	6.2
Black	7,873,809	16.0	100.0	8.8	18.9	30.9	41.4
Hispanic	11,367,157	23.1	100.0	13.0	19.4	29.9	37.7
Asian	2,281,908	4.6	100.0	38.7	25.9	20.8	14.6
Pacific Islander	169,678	0.3	100.0	14.4	32.2	34.2	19.2
American Indian/Alaska Native	561,126	1.1	100.0	11.5	23.8	33.4	31.4
Two or more races	1,157,332	2.4	100.0	25.0	31.8	27.6	15.6
<b>Race/ethnicity by sex</b>							
<b>Male</b>							
White	13,316,510	27.1	100.0	32.9	36.4	24.3	6.3
Black	4,016,659	8.2	100.0	8.9	18.9	30.7	41.6
Hispanic	5,822,182	11.8	100.0	12.9	19.4	29.9	37.8
Asian	1,163,246	2.4	100.0	38.2	25.7	21.1	14.9
Pacific Islander	87,657	0.2	100.0	14.4	32.3	34.0	19.3
American Indian/Alaska Native	287,382	0.6	100.0	11.5	23.8	33.3	31.4
Two or more races	583,984	1.2	100.0	25.0	31.8	27.5	15.7
<b>Female</b>							
White	12,484,511	25.4	100.0	33.2	36.6	24.1	6.0
Black	3,857,150	7.8	100.0	8.7	19.0	31.0	41.3
Hispanic	5,544,975	11.3	100.0	13.0	19.4	29.9	37.6
Asian	1,118,662	2.3	100.0	39.2	26.1	20.5	14.2
Pacific Islander	82,021	0.2	100.0	14.3	32.2	34.4	19.1
American Indian/Alaska Native	273,744	0.6	100.0	11.4	23.8	33.4	31.4
Two or more races	573,348	1.2	100.0	25.0	31.9	27.7	15.4

<sup>1</sup> Includes students enrolled in schools that did not report free or reduced-price lunch eligibility.

<sup>2</sup> Columns indicate the percentage of students who attended schools where persons who are eligible for free or reduced-price lunch make up one of the following: 25 percent or fewer of that school's enrollment, 26-50 percent of that school's enrollment, 51-75 percent of that school's enrollment, or more than 75 percent of that school's enrollment. For example, 24 percent of female students in public elementary and secondary schools attend a school where 25 percent or fewer of the students were eligible for free or reduced-price lunch and 20 percent attend a school where more than 75 percent of the students were eligible for free or reduced-price lunch.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table. Also includes schools that did not report data on sex and race/ethnicity.

NOTE: The National School Lunch Program is a federally assisted meal program. To be eligible, a student must be from a household with an income at or below 130 percent of the poverty threshold for free lunch, or between 130 percent and 185 percent of the poverty threshold for reduced-price lunch. Schools with missing data were excluded from the percentage distribution analysis. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010-11.

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## Indicator 7 Adequate Yearly Progress

In school year 2008–09, higher percentages of Hispanic (48 percent), Black (46 percent), American Indian/Alaska Native (43 percent), and Asian/Pacific Islander (40 percent) students attended schools that did not meet adequate yearly progress (AYP) than did their White peers (33 percent).

Adequate yearly progress (AYP) is an individual state's measure of yearly progress toward achieving state academic standards based on criteria contained in the Elementary and Secondary Education Act (ESEA) statute that involve meeting predetermined annual objectives in various subject areas. AYP represents the minimum level of improvement that public schools must attain each year. In school year 2008–09, some 60 percent of the 48 million students in public elementary and secondary schools that reported data attended a school that met AYP. Thirty-nine percent attended schools that did not meet AYP, and 1 percent attended schools that were not required to meet AYP.

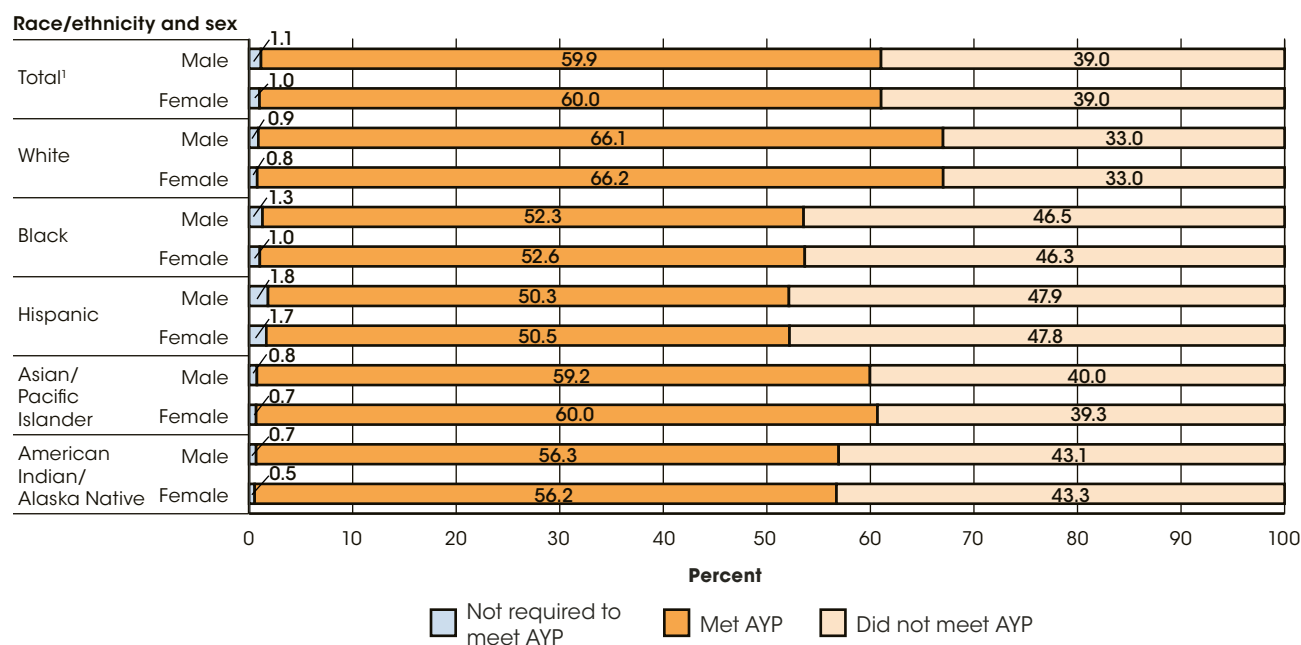
The percentage of students attending schools that did not meet AYP was similar for males and females (both overall and within each racial/ethnic group), although it did vary by race/ethnicity. Higher percentages of Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students than White students attended schools that did not meet AYP. The percentages were: Hispanics (48 percent), Blacks (46 percent), American Indians/Alaska Natives (43 percent), Asians/Pacific Islanders (40 percent), and Whites (33 percent).

### Technical Notes

Data are derived from the 96 percent of public schools that reported on adequate yearly progress. This indicator presents information on Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since

96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Figure 7-1. Percentage of students attending public elementary and secondary schools, by status of adequate yearly progress (AYP), race/ethnicity, and sex: School year 2008–09**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
NOTE: AYP is an individual state's measure of yearly progress toward achieving state academic standards based on criteria contained in the Elementary and Secondary Education Act (ESEA) statute. AYP is the minimum level of improvement that public schools must attain each year and is based on spring accountability testing and prior performance. Data are derived from the 96 percent of schools that reported on AYP. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2008–09 and ED Facts SY 2008–09.

**Table 7-1. Number and percentage of students attending public elementary and secondary schools, by status of adequate yearly progress (AYP), sex, and race/ethnicity: School year 2008-09**

Sex and race/ethnicity	Total	Not required to meet AYP	Required to meet AYP	
			Met AYP	Did not meet AYP
<b>Total, number<sup>1</sup></b>	<b>48,263,000</b>	<b>520,000</b>	<b>28,936,000</b>	<b>18,808,000</b>
<b>Total, percentage<sup>1</sup></b>	<b>100.0</b>	<b>1.1</b>	<b>60.0</b>	<b>39.0</b>
<b>Sex</b>				
Male	100.0	1.1	59.9	39.0
Female	100.0	1.0	60.0	39.0
<b>Race/ethnicity</b>				
White	100.0	0.8	66.2	33.0
Black	100.0	1.2	52.4	46.4
Hispanic	100.0	1.7	50.4	47.8
Asian/Pacific Islander	100.0	0.7	59.6	39.7
American Indian/Alaska Native	100.0	0.6	56.2	43.2
Two or more races	—	—	—	—
<b>Race/ethnicity by sex</b>				
<b>Male</b>				
White	100.0	0.9	66.1	33.0
Black	100.0	1.3	52.3	46.5
Hispanic	100.0	1.8	50.3	47.9
Asian/Pacific Islander	100.0	0.8	59.2	40.0
American Indian/Alaska Native	100.0	0.7	56.3	43.1
Two or more races	—	—	—	—
<b>Female</b>				
White	100.0	0.8	66.2	33.0
Black	100.0	1.0	52.6	46.3
Hispanic	100.0	1.7	50.5	47.8
Asian/Pacific Islander	100.0	0.7	60.0	39.3
American Indian/Alaska Native	100.0	0.5	56.2	43.3
Two or more races	—	—	—	—

— Not available.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Excludes enrollments for schools for which no data on AYP were available. AYP is an individual state's measure of yearly progress toward achieving state academic standards based on criteria contained in the Elementary and Secondary Education Act (ESEA) statute. AYP is the minimum level of improvement that public schools must attain each year and is based on spring accountability testing and prior performance. Data are derived from the 96 percent of schools that reported on AYP. Also, excludes schools for which enrollment data by race/ethnicity and sex were not available. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2008-09 and *EDFacts* SY 2008-09.

## Indicator 8 Types of Public Schools

*In school year 2010–11, higher percentages of males than females were enrolled at alternative schools ending in grade 12, both overall and within each racial/ethnic group. For example, 6 percent of Hispanic males versus 5 percent of Hispanic females were enrolled at these schools.*

In school year 2010–11, over 49 million students were enrolled in public elementary and secondary schools in the United States. Nearly all (98 percent) of them attended regular public schools, 1 percent attended alternative schools, and less than 1 percent each attended special education schools and vocational education schools. About 4 percent each of students attended public charter schools and magnet schools, most of which were also classified as regular schools.

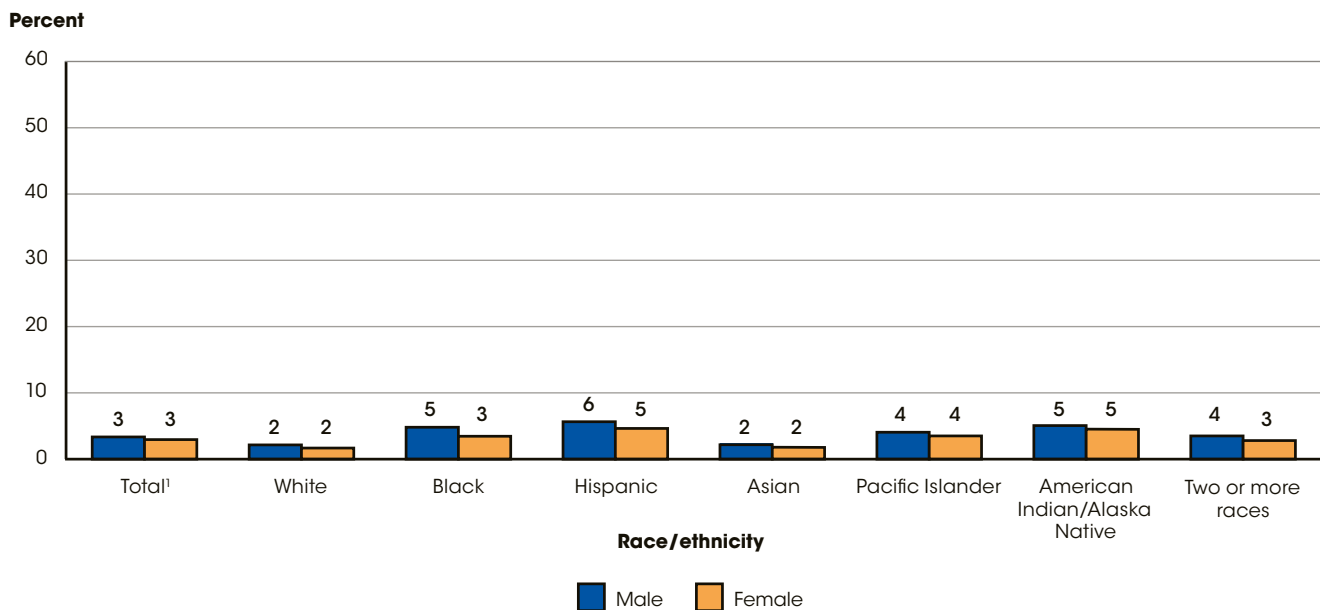
Higher percentages of Black, Hispanic, Pacific Islander, and American Indian/Alaska Native students attended alternative schools than did their peers who were White, Asian, and of two or more races. Higher percentages of males than females were enrolled at these schools, but the differences by sex (overall and for specific racial/ethnic groups) were all less than one percentage point. At charter schools, higher percentages of students who were Black, Hispanic, Pacific Islander, and of two or more races were enrolled than their White, Asian, and American Indian/Alaska Native peers. At magnet schools, higher percentages of students who were Black, Hispanic, Asian, and of two or more races were enrolled than their White, Pacific Islander, and American Indian/Alaska Native peers. Female enrollment was higher than male

enrollment overall and by race/ethnicity at both charter and magnet schools.

Public schools that end in grade 12 enrolled over 15 million students in 2010–11. (These schools may include both secondary schools and schools that offer both primary and secondary grades, as long as the last grade is grade 12.) Ninety-five percent of students in schools that end in grade 12 attended regular public schools, 3 percent attended alternative schools, and 1 percent each attended special education schools and vocational education schools. Five percent of these students attended public charter schools, and 6 percent attended magnet schools.

Higher percentages of Hispanic (5 percent), American Indian/Alaska Native (5 percent), Black (4 percent), and Pacific Islander (4 percent) students enrolled in alternative schools that end in grade 12 than students of two or more races (3 percent) and White and Asian students (2 percent each). Male enrollment was higher than female enrollment at alternative schools that end in grade 12 overall and for each racial/ethnic group. For example, 6 percent of Hispanic males versus 5 percent of Hispanic females were enrolled at these schools.

**Figure 8-1. Percentage of students in public alternative elementary and secondary schools ending in grade 12, by race/ethnicity and sex: School year 2010–11**

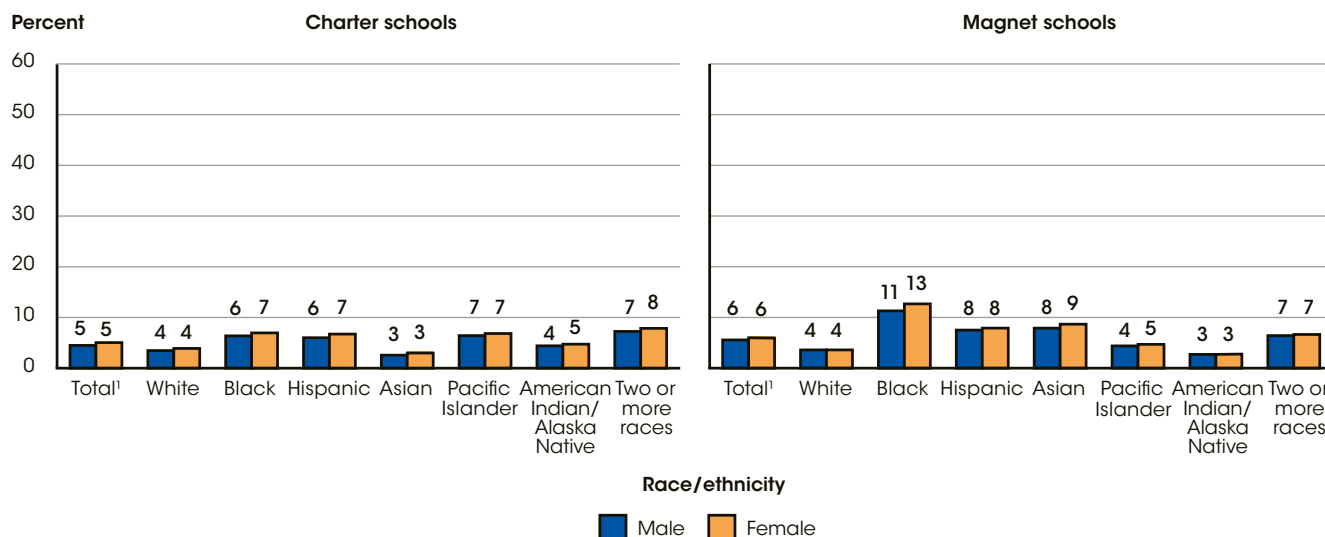


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010–11.

**Figure 8-2. Percentage of students in public charter and magnet elementary and secondary schools ending in grade 12, by race/ethnicity and sex: School year 2010–11**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010–11.

At charter schools that end in grade 12, higher percentages of students who were of two or more races (8 percent), Pacific Islander (7 percent), Black (7 percent), Hispanic (6 percent), and American Indian/Alaska Native (5 percent) were enrolled than their peers who were White (4 percent) and Asian (3 percent). The percentage of female enrollment was higher than that of male enrollment at charter schools that end in grade 12, both overall and for each racial/ethnic group. For instance, 7 percent of Black females were enrolled at these schools, compared with 6 percent of Black males. At magnet

schools that end in grade 12, higher percentages of students who were Black (12 percent), Asian (9 percent), Hispanic (8 percent), and of two or more races were enrolled (7 percent) than Pacific Islander (5 percent), White (4 percent), and American Indian/Alaska Native students (3 percent). Females enrolled at these schools in higher percentages than males, both overall and in terms of race/ethnicity. For instance, at magnet schools ending in grade 12, enrollment was at 13 percent for Black females, compared with 11 percent for Black males.

### Technical Notes

A special education school is a public elementary/secondary school that focuses primarily on special education—including instruction for students with various conditions—and that adapts curriculum, materials, or instruction for students served. A vocational education school is a public elementary/secondary school that focuses primarily on providing formal preparation for semiskilled, skilled, technical, or professional occupations for high-school-age students who have opted to develop or expand their employment opportunities, often in lieu of preparing for college entry. An alternative education school is a public elementary/secondary school that (1) addresses needs of students that typically cannot be met in a regular school, (2) provides nontraditional education, (3) serves as an adjunct to a regular school, or (4) falls outside the categories of regular, special

education, or vocational education. A charter school is a school providing free public elementary and/or secondary education to eligible students under a specific charter granted by an appropriate authority and designated by such authority to be a charter school. A magnet school is a special school or program designed to attract students of different racial/ethnic backgrounds for the purpose of reducing, preventing, or eliminating racial isolation (50 percent or more minority enrollment) or to provide an academic or social focus on a particular theme (e.g., science/math, performing arts, gifted/talented, or foreign language), or both. Regular, special education, vocational education, and alternative school categories are mutually exclusive, whereas charter and magnet schools can also be categorized as one of these types of schools.

**Table 8-1. Number and percentage distribution of students in public elementary and secondary schools, by school type, race/ethnicity, and sex: School year 2010-11**

Race/ethnicity and sex	Total	Regular	Special education <sup>1</sup>	Vocational education <sup>2</sup>	Alternative <sup>3</sup>	Charter <sup>4</sup>	Magnet <sup>5</sup>
<b>Total<sup>6</sup></b>	<b>49,212,031</b>	<b>48,291,063</b>	<b>191,677</b>	<b>164,074</b>	<b>565,217</b>	<b>1,789,496</b>	<b>2,057,769</b>
	Number						
Race/ethnicity							
White	25,801,021	25,448,326	87,226	70,795	194,674	647,735	686,555
Black	7,873,809	7,641,434	50,859	41,125	140,391	516,703	653,158
Hispanic	11,367,157	11,099,087	40,318	38,685	189,067	489,462	534,799
Asian	2,281,908	2,247,723	7,066	10,507	16,612	58,239	115,958
Pacific Islander	169,678	166,747	441	161	2,329	8,421	4,630
American Indian/Alaska Native	561,126	547,609	2,005	855	10,657	16,963	12,020
Two or more races	1,157,332	1,140,137	3,762	1,946	11,487	51,973	50,649
Race/ethnicity by sex							
Male	25,277,620	24,746,160	123,956	89,387	318,117	886,502	1,026,397
White	13,316,510	13,109,690	56,251	41,128	109,441	324,541	347,997
Black	4,016,659	3,881,909	33,411	20,586	80,753	254,564	317,991
Hispanic	5,822,182	5,670,336	25,845	20,281	105,720	240,852	268,992
Asian	1,163,246	1,143,814	4,437	5,876	9,119	28,723	58,388
Pacific Islander	87,657	86,022	281	87	1,267	4,282	2,297
American Indian/Alaska Native	287,382	280,063	1,297	449	5,573	8,438	6,033
Two or more races	583,984	574,326	2,434	980	6,244	25,102	24,699
Female	23,934,411	23,544,903	67,721	74,687	247,100	902,994	1,031,372
White	12,484,511	12,338,636	30,975	29,667	85,233	323,194	338,558
Black	3,857,150	3,759,525	17,448	20,539	59,638	262,139	335,167
Hispanic	5,544,975	5,428,751	14,473	18,404	83,347	248,610	265,807
Asian	1,118,662	1,103,909	2,629	4,631	7,493	29,516	57,570
Pacific Islander	82,021	80,725	160	74	1,062	4,139	2,333
American Indian/Alaska Native	273,744	267,546	708	406	5,084	8,525	5,987
Two or more races	573,348	565,811	1,328	966	5,243	26,871	25,950

See notes at end of table.



**Table 8-1. Number and percentage distribution of students in public elementary and secondary schools, by school type, race/ethnicity, and sex: School year 2010-11—Continued**

Race/ethnicity and sex	Total	Regular	Special education <sup>1</sup>	Vocational education <sup>2</sup>	Alternative <sup>3</sup>	Charter <sup>4</sup>	Magnet <sup>5</sup>
<b>Total<sup>6</sup></b>	<b>100.0</b>	<b>98.1</b>	<b>0.4</b>	<b>0.3</b>	<b>1.1</b>	<b>3.6</b>	<b>4.2</b>
Race/ethnicity							
White	100.0	98.6	0.3	0.3	0.8	2.5	2.7
Black	100.0	97.0	0.6	0.5	1.8	6.6	8.3
Hispanic	100.0	97.6	0.4	0.3	1.7	4.3	4.7
Asian	100.0	98.5	0.3	0.5	0.7	2.6	5.1
Pacific Islander	100.0	98.3	0.3	0.1	1.4	5.0	2.7
American Indian/Alaska Native	100.0	97.6	0.4	0.2	1.9	3.0	2.1
Two or more races	100.0	98.5	0.3	0.2	1.0	4.5	4.4
Race/ethnicity by sex							
Male							
White	100.0	97.9	0.5	0.4	1.3	3.5	4.1
Black	100.0	98.4	0.4	0.3	0.8	2.4	2.6
Hispanic	100.0	96.6	0.8	0.5	2.0	6.3	7.9
Asian	100.0	97.4	0.4	0.3	1.8	4.1	4.6
Pacific Islander	100.0	98.3	0.4	0.5	0.8	2.5	5.0
American Indian/Alaska Native	100.0	98.1	0.3	0.1	1.4	4.9	2.6
Two or more races	100.0	97.5	0.5	0.2	1.9	2.9	2.1
Female							
White	100.0	98.4	0.3	0.3	1.0	3.8	4.3
Black	100.0	98.8	0.2	0.2	0.7	2.6	2.7
Hispanic	100.0	97.5	0.5	0.5	1.5	6.8	8.7
Asian	100.0	97.9	0.3	0.3	1.5	4.5	4.8
Pacific Islander	100.0	98.7	0.2	0.4	0.7	2.6	5.1
American Indian/Alaska Native	100.0	98.4	0.2	0.1	1.3	5.0	2.8
Two or more races	100.0	97.7	0.3	0.1	1.9	3.1	2.2
Two or more races	100.0	98.7	0.2	0.2	0.9	4.7	4.5

<sup>1</sup> A public elementary/secondary school that focuses primarily on special education—including instruction for students with various conditions—and that adapts curriculum, materials, or instruction for students served.

<sup>2</sup> A public elementary/secondary school that focuses primarily on providing formal preparation for semiskilled, skilled, technical, or professional occupations for high-school-age students who have opted to develop or expand their employment opportunities, often in lieu of preparing for college entry.

<sup>3</sup> A public elementary/secondary school that (1) addresses needs of students that typically cannot be met in a regular school, (2) provides nontraditional education, (3) serves as an adjunct to a regular school, or (4) falls outside the categories of regular, special education, or vocational education.

<sup>4</sup> A school providing free public elementary and/or secondary education to eligible students under a specific charter granted by an appropriate authority and designated by such authority to be a charter school.

<sup>5</sup> A special school or program designed to attract students of different racial/ethnic backgrounds for the purpose of reducing, preventing, or eliminating racial isolation or to provide an academic or social focus on a particular theme, or both.

<sup>6</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Excludes schools for which enrollment data by race/ethnicity and sex were not available. Regular, special education, vocational education, and alternative school categories are mutually exclusive, whereas charter and magnet schools can also be categorized as one of these types of schools. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010-11.

**Table 8-2. Number and percentage distribution of students in public elementary and secondary schools ending in grade 12, by school type, race/ethnicity, and sex: School year 2010-11**

Race/ethnicity and sex	Total	Regular	Special education <sup>1</sup>	Vocational education <sup>2</sup>	Alternative <sup>3</sup>	Charter <sup>4</sup>	Magnet <sup>5</sup>
<b>Total<sup>6</sup></b>	<b>15,443,133</b>	<b>14,704,134</b>	<b>113,411</b>	<b>159,487</b>	<b>466,101</b>	<b>744,761</b>	<b>957,689</b>
	Number						
Race/ethnicity							
White	8,517,520	8,232,382	49,774	69,250	166,114	319,752	312,882
Black	2,503,668	2,331,058	29,867	39,080	103,663	166,800	299,902
Hispanic	3,176,731	2,949,265	25,776	38,103	163,587	202,018	256,453
Asian	717,083	690,066	4,403	10,193	12,421	22,296	61,160
Pacific Islander	51,339	48,935	293	147	1,964	3,448	2,330
American Indian/Alaska Native	186,884	175,570	1,248	843	9,223	8,540	5,132
Two or more races	289,908	276,858	2,050	1,871	9,129	21,907	19,830
Race/ethnicity by sex							
Male	7,900,786	7,473,997	75,125	87,064	264,600	364,138	473,056
White	4,374,574	4,207,263	33,002	40,369	93,940	158,354	157,469
Black	1,265,572	1,164,931	20,232	19,510	60,899	80,683	142,956
Hispanic	1,625,801	1,497,382	16,675	19,987	91,757	97,684	128,361
Asian	368,893	353,286	2,831	5,731	7,045	11,029	30,963
Pacific Islander	26,371	25,032	190	79	1,070	1,740	1,158
American Indian/Alaska Native	95,966	89,833	830	443	4,860	4,235	2,608
Two or more races	143,609	136,270	1,365	945	5,029	10,413	9,541
Female	7,542,347	7,230,137	38,286	72,423	201,501	380,623	484,633
White	4,142,946	4,025,119	16,772	28,881	72,174	161,398	155,413
Black	1,238,096	1,166,127	9,635	19,570	42,764	86,117	156,946
Hispanic	1,550,930	1,451,883	9,101	18,116	71,830	104,334	128,092
Asian	348,190	336,780	1,572	4,462	5,376	11,267	30,197
Pacific Islander	24,968	23,903	103	68	894	1,708	1,172
American Indian/Alaska Native	90,918	85,737	418	400	4,363	4,305	2,524
Two or more races	146,299	140,588	685	926	4,100	11,494	10,289

See notes at end of table.

**Table 8-2. Number and percentage distribution of students in public elementary and secondary schools ending in grade 12, by school type, race/ethnicity, and sex: School year 2010-11—Continued**

Race/ethnicity and sex	Total	Regular	Special education <sup>1</sup>	Vocational education <sup>2</sup>	Alternative <sup>3</sup>	Percent of total	
						Charter <sup>4</sup>	Magnet <sup>5</sup>
<b>Total<sup>6</sup></b>	<b>100.0</b>	<b>95.2</b>	<b>0.7</b>	<b>1.0</b>	<b>3.0</b>	<b>4.8</b>	<b>6.2</b>
Race/ethnicity							
White	100.0	96.7	0.6	0.8	2.0	3.8	3.7
Black	100.0	93.1	1.2	1.6	4.1	6.7	12.0
Hispanic	100.0	92.8	0.8	1.2	5.1	6.4	8.1
Asian	100.0	96.2	0.6	1.4	1.7	3.1	8.5
Pacific Islander	100.0	95.3	0.6	0.3	3.8	6.7	4.5
American Indian/Alaska Native	100.0	93.9	0.7	0.5	4.9	4.6	2.7
Two or more races	100.0	95.5	0.7	0.6	3.1	7.6	6.8
Race/ethnicity by sex							
Male							
White	100.0	94.6	1.0	1.1	3.3	4.6	6.0
Black	100.0	96.2	0.8	0.9	2.1	3.6	3.6
Hispanic	100.0	92.0	1.6	1.5	4.8	6.4	11.3
Asian	100.0	92.1	1.0	1.2	5.6	6.0	7.9
Pacific Islander	100.0	95.8	0.8	1.6	1.9	3.0	8.4
American Indian/Alaska Native	100.0	94.9	0.7	0.3	4.1	6.6	4.4
Two or more races	100.0	93.6	0.9	0.5	5.1	4.4	2.7
Female							
White	100.0	95.9	0.5	1.0	2.7	5.0	6.4
Black	100.0	97.2	0.4	0.7	1.7	3.9	3.8
Hispanic	100.0	94.2	0.8	1.6	3.5	7.0	12.7
Asian	100.0	96.7	0.6	1.2	4.6	6.7	8.3
Pacific Islander	100.0	93.6	0.6	1.2	4.6	6.7	8.3
American Indian/Alaska Native	100.0	96.7	0.5	1.3	1.5	3.2	8.7
Two or more races	100.0	95.7	0.4	0.3	3.6	6.8	4.7
Two or more races	100.0	94.3	0.5	0.4	4.8	4.7	2.8
Two or more races	100.0	96.1	0.5	0.6	2.8	7.9	7.0

<sup>1</sup> A public elementary/secondary school that focuses primarily on special education—including instruction for students with various conditions—and that adapts curriculum, materials, or instruction for students served.

<sup>2</sup> A public elementary/secondary school that focuses primarily on providing formal preparation for semiskilled, skilled, technical, or professional occupations for high-school-age students who have opted to develop or expand their employment opportunities, often in lieu of preparing for college entry.

<sup>3</sup> A public elementary/secondary school that (1) addresses needs of students that typically cannot be met in a regular school, (2) provides nontraditional education, (3) serves as an adjunct to a regular school, or (4) falls outside the categories of regular, special education, or vocational education.

<sup>4</sup> A school providing free public elementary and/or secondary education to eligible students under a specific charter granted by an appropriate authority and designated by such authority to be a charter school.

<sup>5</sup> A special school or program designed to attract students of different racial/ethnic backgrounds for the purpose of reducing, preventing, or eliminating racial isolation, or to provide an academic or social focus on a particular theme, or both.

<sup>6</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Excludes schools for which enrollment data by race/ethnicity and sex were not available. May include both secondary schools and schools that offer both primary and secondary grades, as long as the last grade is grade 12. Regular, special education, vocational education, and alternative school categories are mutually exclusive, whereas charter and magnet schools can also be categorized as one of these types of schools. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010-11.

## Indicator 9 Advanced Coursework Offerings

*A higher percentage of 2009 Asian/Pacific Islander high school graduates than their White, Black, and American Indian/Alaska Native peers attended schools that offered at least one AP or IB course; this percentage was also higher for Hispanics than for Whites. No measurable differences in AP or IB mathematics or science course availability were found between males and females either overall or by race/ethnicity.*

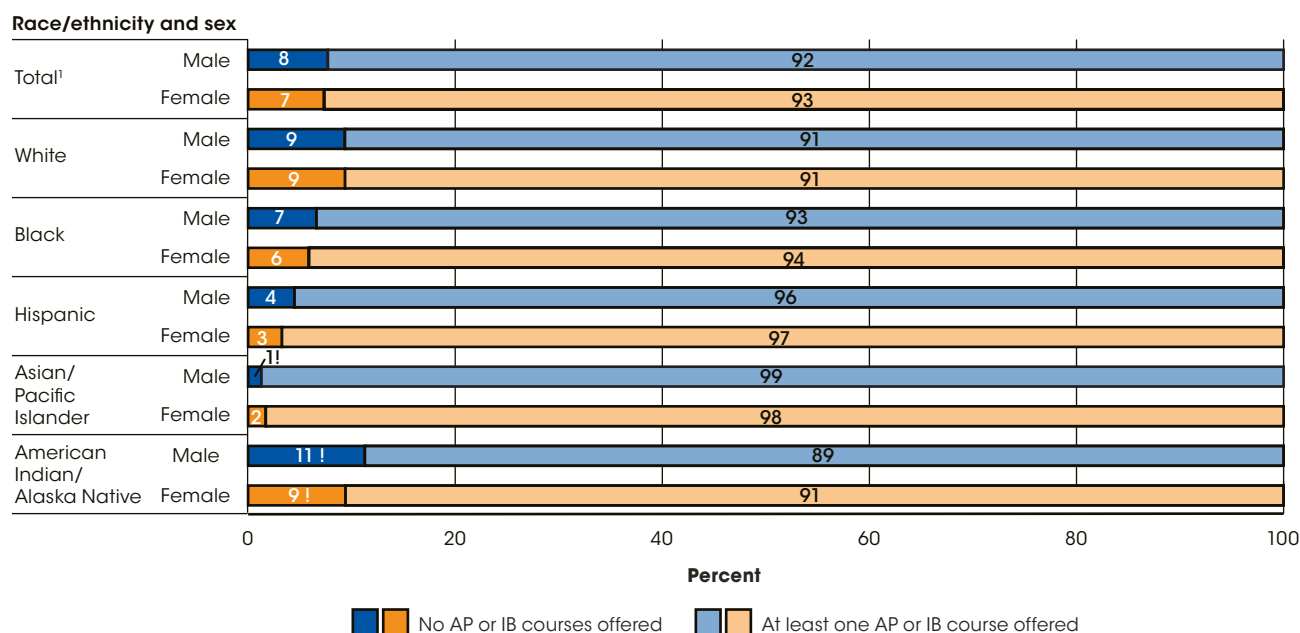
Some 92 percent of 2009 high school graduates attended schools that offered at least one AP or IB course. No measurable differences were found between males and females (overall or among the specific racial/ethnic groups) in the percentage of graduates in schools that offered at least one AP or IB course. A higher percentage of Asian/Pacific Islander graduates attended a school that offered at least one AP or IB course (98 percent) than did their White (91 percent), Black (94 percent), and American Indian/Alaska Native peers (90 percent). The percentage attending such a school was also higher for Hispanic graduates (96 percent) than for White graduates. These overall patterns by race/ethnicity were generally similar to those for males and females.

A majority of high school graduates attended schools with at least two AP or IB course offerings in specific subject areas, including social studies (74 percent), science (71 percent), English (65 percent), and mathematics (61 percent); the percentages of graduates having access

to two or more AP or IB courses in foreign language and all other subjects were 52 and 48 percent, respectively. No measurable differences were found between male and female graduates (overall or among the specific racial/ethnic groups) in the percentage with access to two or more AP or IB courses in mathematics or science.

Higher percentages of 2009 Asian/Pacific Islander and Hispanic high school graduates attended schools that offered two or more AP or IB courses in mathematics than did their White and Black classmates (85 and 69 percent vs. 59 and 53 percent, respectively). This percentage was also higher for Asians/Pacific Islanders than for Hispanics and American Indians/Alaska Natives (62 percent). Additionally, the above patterns for AP or IB mathematics course availability by race/ethnicity held among female graduates. Among male high school graduates, the percentages with this level of access to AP or IB mathematics courses were higher for Asians/Pacific Islanders and Hispanics than for Whites and Blacks,

**Figure 9-1. Percentage distribution of high school graduates, by number of advanced placement (AP) or international baccalaureate (IB) courses offered in school, race/ethnicity, and sex: 2009**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), High School Transcript Study (HSTS), 2009.

higher for Asians/Pacific Islanders than for Hispanics and American Indians/Alaska Natives, and higher for Whites than Blacks.

Higher percentages of 2009 Asian/Pacific Islander and Hispanic high school graduates attended schools that offered two or more AP or IB courses in science than did their White and Black counterparts (82 and 80 percent vs.

69 and 65 percent, respectively). However, no measurable differences were found in the percentage of American Indians/Alaska Natives with this level of access to AP or IB science courses (66 percent) and those for their peers in any of the other racial/ethnic groups. These overall patterns of access to AP or IB science by race/ethnicity also held among males and females.

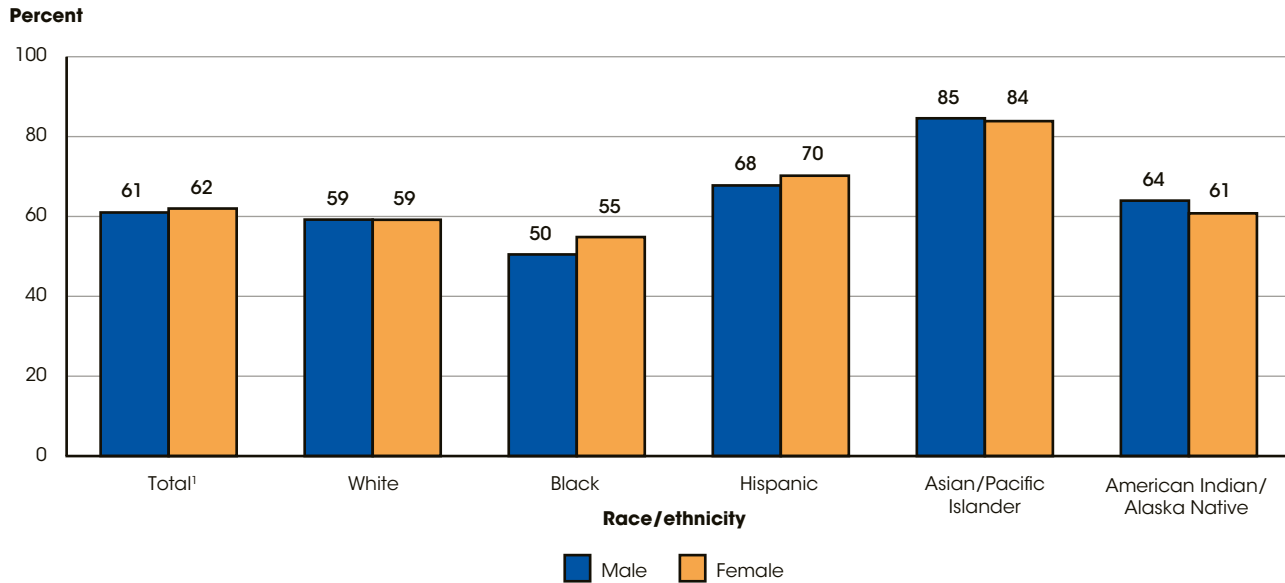
## Technical Notes

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AP or IB mathematics courses include calculus (AB and BC) and statistics. AP or IB science courses include those in biology, chemistry, physics, environmental science, and design technology. Social studies courses include those AP or IB courses in psychology, economics, geography, government, politics, and history. Foreign language courses include any foreign language course designated as IB or for which AP testing is offered. Other AP or IB courses include those in fine arts, music, theater, and computer science. Course catalogs contained all of the courses that graduates could have taken in high school,

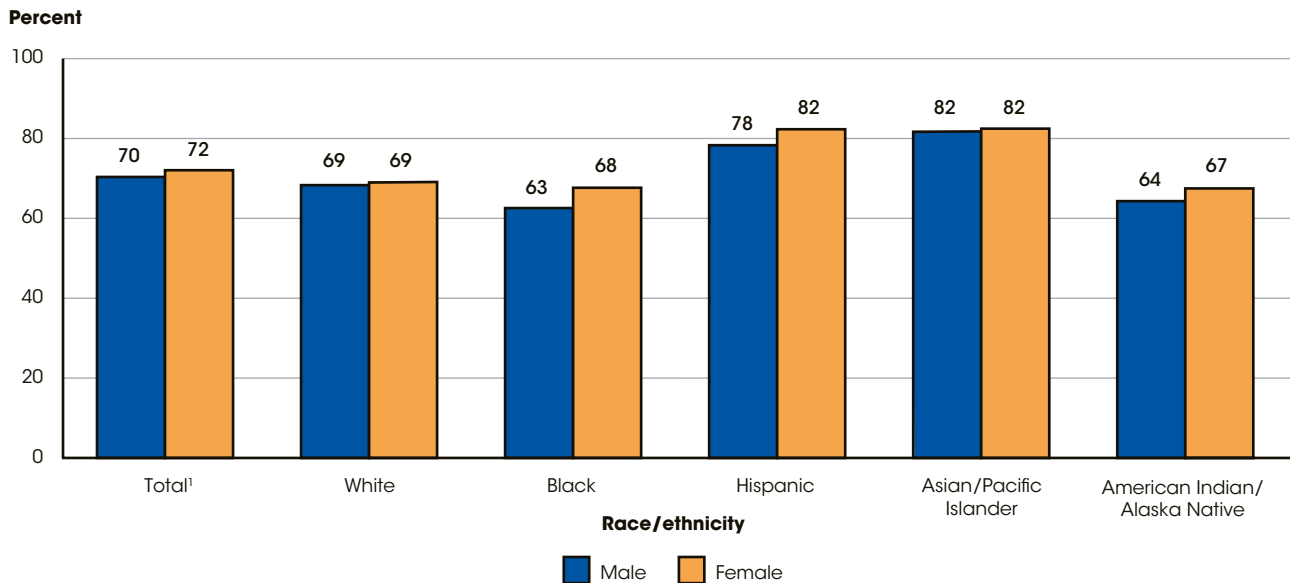
including vocational, remedial, honors, special education, or off-campus courses, as well as courses taught in a language other than English. This indicator presents information on Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Figure 9-2. Percentage of high school graduates in schools that offered two or more advanced placement (AP) or international baccalaureate (IB) courses in mathematics, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), High School Transcript Study (HSTS), 2009.

**Figure 9-3. Percentage of high school graduates in schools that offered two or more advanced placement (AP) or international baccalaureate (IB) courses in science, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), High School Transcript Study (HSTS), 2009.

**Table 9-1. Percentage of high school graduates in schools offering advanced placement (AP) and international baccalaureate (IB) courses, by subject, sex, and race/ethnicity: 2009**

Sex and race/ethnicity	No AP or IB courses offered	At least one course offered in an AP or IB subject <sup>1</sup>						
		Any course	Mathematics	Science	English	Social studies	Foreign language	Other subjects
<b>Total<sup>2</sup></b>	<b>7.5</b>	<b>92.5</b>	<b>85.4</b>	<b>82.6</b>	<b>85.8</b>	<b>85.2</b>	<b>63.6</b>	<b>65.0</b>
<b>Sex</b>								
Male	7.7	92.3	85.1	81.5	85.8	84.9	62.6	64.5
Female	7.3	92.7	85.8	83.7	85.8	85.5	64.5	65.5
<b>Race/ethnicity</b>								
White	9.4	90.6	83.4	80.9	82.2	81.8	57.9	62.1
Black	6.2	93.8	82.5	80.1	90.0	86.2	58.7	60.5
Hispanic	3.8	96.2	92.3	87.2	92.4	93.7	81.2	72.3
Asian/Pacific Islander	1.5	98.5	95.6	93.4	95.8	96.5	87.9	85.3
American Indian/Alaska Native	10.3 !	89.7	81.2	78.3	78.5	72.9	49.2	54.9
Two or more races	—	—	—	—	—	—	—	—
<b>Race/ethnicity by sex</b>								
<b>Male</b>								
White	9.3	90.7	83.3	80.5	82.5	82.0	57.7	62.1
Black	6.6	93.4	81.4	77.0	89.3	84.5	55.8	58.2
Hispanic	4.5	95.5	91.7	85.0	91.8	93.5	79.0	71.5
Asian/Pacific Islander	1.3 !	98.7	95.5	92.8	96.6	96.8	87.8	85.0
American Indian/Alaska Native	11.3 !	88.7	81.8	77.3	79.3	72.2	50.4	54.6
Two or more races	—	—	—	—	—	—	—	—
<b>Female</b>								
White	9.4	90.6	83.4	81.4	81.9	81.7	58.1	62.2
Black	5.9	94.1	83.5	82.8	90.5	87.6	61.2	62.6
Hispanic	3.3	96.7	92.8	89.2	92.9	94.0	83.2	72.9
Asian/Pacific Islander	1.7	98.3	95.7	94.0	95.1	96.2	88.0	85.6
American Indian/Alaska Native	9.4 !	90.6	80.7	79.1	77.8	73.5	48.3	55.2
Two or more races	—	—	—	—	—	—	—	—

— Not available.

! Interpret data with caution. The coefficient of variation for this estimate is 30 percent or greater.

<sup>1</sup> These columns indicate the percentages of graduates in schools that offer at least one course in the designated AP or IB subject. For example, 92.3 percent of male graduates attended a school that offered at least one AP or IB course in any subject.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: AP or IB mathematics courses include calculus (AB and BC) and statistics. AP or IB science courses include those in biology, chemistry, physics, environmental science, and design technology. Social studies courses include those AP or IB courses in psychology, economics, geography, government, politics, and history. Foreign language courses include any foreign language course designated as IB or for which AP testing is offered. Other AP or IB courses include those in fine arts, music, theater, and computer science. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), High School Transcript Study (HSTS), 2009.

**Table 9-2. Percentage distribution of high school graduates, by type and number of advanced placement (AP) or international baccalaureate (IB) courses offered in school, average number of courses offered, sex, and race/ethnicity: 2009**

Sex and race/ethnicity	Mathematics <sup>1</sup>				Science <sup>1</sup>				English <sup>1</sup>			
	Number of AP or IB courses			Average number of courses	Number of AP or IB courses			Average number of courses	Number of AP or IB courses			Average number of courses
	No course	One course	Two or more courses		No course	One course	Two or more courses		No course	One course	Two or more courses	
<b>Total<sup>2</sup></b>	<b>14.6</b>	<b>24.0</b>	<b>61.5</b>	<b>1.9</b>	<b>17.4</b>	<b>11.4</b>	<b>71.2</b>	<b>3.1</b>	<b>14.2</b>	<b>20.3</b>	<b>65.5</b>	<b>1.6</b>
Sex												
Male	14.9	24.1	61.0	1.9	18.5	11.2	70.4	3.0	14.2	20.8	65.0	1.6
Female	14.2	23.8	62.0	1.9	16.3	11.6	72.1	3.1	14.2	19.9	65.9	1.6
Race/ethnicity												
White	16.6	24.2	59.2	1.8	19.1	11.8	69.2	2.9	17.8	21.2	61.1	1.5
Black	17.5	29.7	52.8	1.7	19.9	14.8	65.3	3.1	10.0	24.1	65.8	1.8
Hispanic	7.7	23.2	69.1	2.1	12.8	6.8	80.4	3.6	7.6	13.2	79.2	1.8
Asian/Pacific Islander	4.4	11.1	84.5	2.5	6.6	11.1!	82.3	3.6	4.2	21.6	74.2	1.9
American Indian/Alaska Native	18.8	19.0	62.2	1.8	21.7!	12.2!	66.0	2.8	21.5	8.4!	70.1	1.6
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—
Race/ethnicity by sex												
Male												
White	16.7	24.1	59.2	1.8	19.5	11.5	69.0	2.9	17.5	21.0	61.6	1.5
Black	18.6	31.0	50.5	1.7	23.0	14.4	62.6	3.0	10.7	26.1	63.2	1.7
Hispanic	8.3	23.9	67.8	2.1	15.0	6.7	78.3	3.5	8.2	14.4	77.4	1.8
Asian/Pacific Islander	4.5	10.9	84.6	2.5	7.2	10.7!	82.1	3.6	3.4	22.6	74.0	1.9
American Indian/Alaska Native	18.2	17.8!	64.0	1.8	‡	13.0!	64.3	2.8	20.7	6.8!	72.5	1.6
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—
Female												
White	16.6	24.3	59.2	1.8	18.6	12.1	69.3	2.9	18.1	21.3	60.6	1.5
Black	16.5	28.6	54.8	1.8	17.2	15.2	67.7	3.3	9.5	22.4	68.1	1.8
Hispanic	7.2	22.6	70.2	2.1	10.8	6.9	82.3	3.7	7.1	12.1	80.7	1.9
Asian/Pacific Islander	4.3!	11.3	84.5	2.5	6.0	11.5!	82.5	3.7	4.9	20.7	74.4	1.9
American Indian/Alaska Native	19.3	19.9	60.8	1.8	20.9!	11.6!	67.5	2.9	22.2	9.8!	68.1	1.5
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—

See notes at end of table.



**Table 9-2. Percentage distribution of high school graduates, by type and number of advanced placement (AP) or international baccalaureate (IB) courses offered in school, average number of courses offered, sex, and race/ethnicity: 2009—Continued**

Sex and race/ethnicity	Social studies <sup>1</sup>				Foreign language <sup>1</sup>				Other subjects <sup>1</sup>			
	Number of AP or IB courses			Average number of courses	Number of AP or IB courses			Average number of courses	Number of AP or IB courses			Average number of courses
	No course	One course	Two or more courses		No course	One course	Two or more courses		No course	One course	Two or more courses	
<b>Total<sup>2</sup></b>	<b>14.8</b>	<b>11.1</b>	<b>74.2</b>	<b>4.2</b>	<b>36.4</b>	<b>11.5</b>	<b>52.1</b>	<b>3.0</b>	<b>35.0</b>	<b>17.0</b>	<b>47.9</b>	<b>2.8</b>
Sex												
Male	15.1	11.0	74.0	4.2	37.4	11.1	51.5	2.9	35.5	16.7	47.8	2.7
Female	14.5	11.2	74.3	4.3	35.5	11.9	52.6	3.0	34.5	17.4	48.1	2.8
Race/ethnicity												
White	18.2	12.1	69.7	3.8	42.1	11.1	46.8	2.6	37.9	17.2	45.0	2.5
Black	13.8	13.8	72.3	4.6	41.3	11.6	47.1	3.2	39.5	12.8	47.7	3.1
Hispanic	6.3	7.5	86.3	5.2	18.8	14.2	67.0	3.9	27.7	17.0	55.2	3.5
Asian/Pacific Islander	3.5	4.5	92.0	5.0	12.1	10.0 !	77.9	4.0	14.7	26.3	59.0	3.3
American Indian/Alaska Native	27.1 !	6.2 !	66.7	3.4	50.8	10.3 !	38.9	1.9	45.1	16.4 !	38.5	2.1
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—
Race/ethnicity by sex												
Male												
White	18.0	11.9	70.0	3.8	42.3	10.7	47.0	2.6	37.9	16.7	45.4	2.5
Black	15.5	13.7	70.8	4.4	44.2	11.5	44.2	3.0	41.8	13.2	44.9	2.9
Hispanic	6.5	7.1	86.3	5.1	21.0	13.6	65.4	3.8	28.5	16.7	54.8	3.5
Asian/Pacific Islander	3.2	5.0	91.9	4.9	12.2	9.7 !	78.1	4.0	15.0	25.4	59.6	3.3
American Indian/Alaska Native	27.8 !	‡	66.4	3.6	49.7	11.7 !	38.7	2.0	45.4	‡	42.2	2.2
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—
Female												
White	18.3	12.2	69.5	3.8	41.9	11.4	46.7	2.6	37.8	17.7	44.5	2.5
Black	12.4	13.9	73.7	4.8	38.8	11.6	49.6	3.4	37.4	12.5	50.1	3.2
Hispanic	6.0	7.7	86.3	5.3	16.8	14.7	68.5	4.0	27.1	17.3	55.6	3.6
Asian/Pacific Islander	3.8	4.0	92.2	5.0	12.0	10.4 !	77.6	4.1	14.4	27.2	58.4	3.4
American Indian/Alaska Native	26.5 !	6.6 !	66.9	3.2	51.7	9.1 !	39.2	1.9	44.8	19.9	35.3	2.0
Two or more races	—	—	—	—	—	—	—	—	—	—	—	—

— Not available.

! Interpret data with caution. The coefficient of variation for this estimate is 30 percent or greater.

‡ Reporting standards not met. The coefficient of variation for this estimate is 50 percent or greater.

<sup>1</sup> These columns indicate the percentages of graduates in schools that offered different numbers of courses in the designated AP or IB subject. For example, 24.1 percent of male graduates attended schools that offered one AP or IB mathematics course and 61.0 percent of males attended schools that offered two or more AP or IB mathematics courses; in addition, for males, the average number of AP or IB mathematics courses offered in their schools was 1.9.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: AP or IB mathematics courses include calculus (AB and BC) and statistics. AP or IB science courses include those in biology, chemistry, physics, environmental science, and design technology. Social studies courses include those AP or IB courses in psychology, economics, geography, government, politics, and history. Foreign language courses include any foreign language course designated as IB or for which AP testing is offered. Other AP or IB courses include those in fine arts, music, theater, and computer science. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), High School Transcript Study (HSTS), 2009.

## Indicator 10

# High School Guidance Counseling

*In 2009, a higher percentage of Asian 9th-graders (60 percent) than Black (44 percent), Hispanic (41 percent), and American Indian/Alaska Native 9th-graders (29 percent) had school counselors who reported that their school's primary counseling program goal was helping students plan and prepare for postsecondary education.*

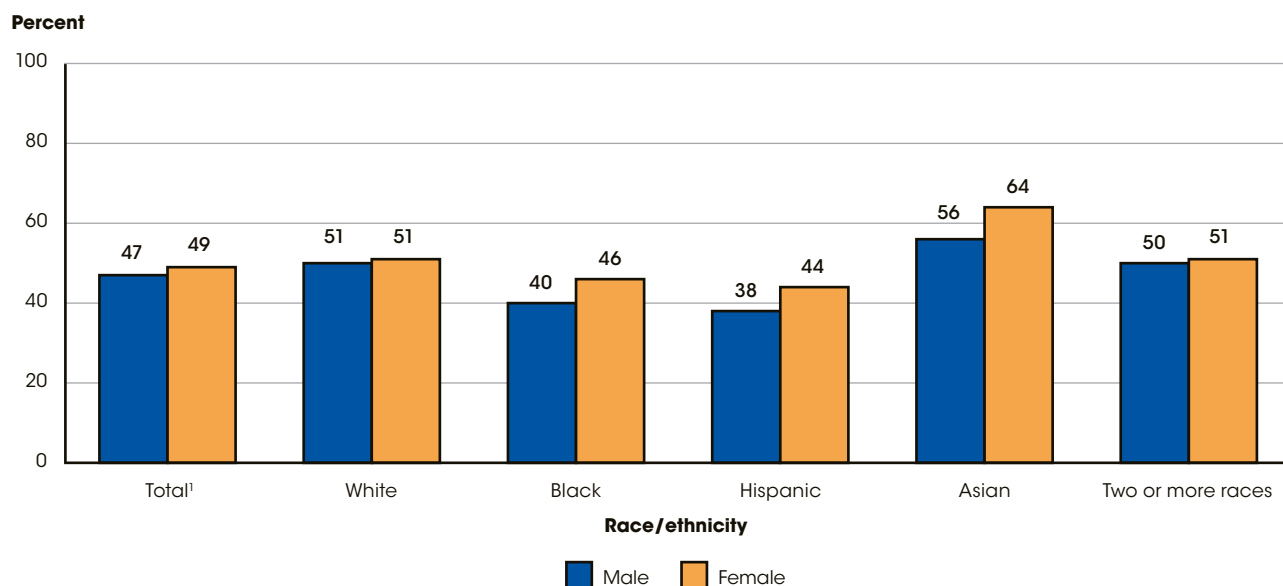
In 2009, school counselors of a nationally representative sample of 9th-graders reported on the primary goals of their school counseling programs. About 48 percent of 9th-graders had counselors who reported that the counseling program's primary goal was helping students plan and prepare for postsecondary education, and 35 percent had counselors who reported that the primary goal was helping students improve their achievement in high school. No measurable differences were found between male and female 9th-graders (overall or within racial/ethnic groups) for either of the primary counseling goals.

A higher percentage of Asian 9th-graders (60 percent) than Black (44 percent), Hispanic (41 percent), and American Indian/Alaska Native 9th-graders (29 percent) had counselors who reported in 2009 that the primary counseling program goal was helping students plan and prepare for postsecondary education. Among male 9th-graders, higher percentages of Asians (56 percent) and Whites (51 percent) than Hispanics (38 percent) attended

schools in which the counseling program's primary goal was postsecondary planning and preparation. For females, a higher percentage of Asian than Hispanic 9th-graders (64 vs. 44 percent) attended schools in which the counseling program's primary goal was postsecondary planning and preparation.

The percentage of 9th-graders whose counselors reported in 2009 that the primary counseling program goal was helping students improve their achievement in high school was higher for Hispanics (45 percent) than for students of two or more races (34 percent), Asians (30 percent), Whites (30 percent), and American Indians/Alaska Natives (23 percent). Similar racial/ethnic patterns were also observed for male 9th-graders. For females, a higher percentage of Hispanic 9th-graders (42 percent) than White (30 percent) and Asian (27 percent) 9th-graders attended schools in which the counseling program's primary goal was improving students' high school achievement.

**Figure 10-1. Percentage of 9th-graders whose school counselors reported that the primary goal of the school counseling program was helping students plan and prepare for postsecondary education, by race/ethnicity and sex: 2009**

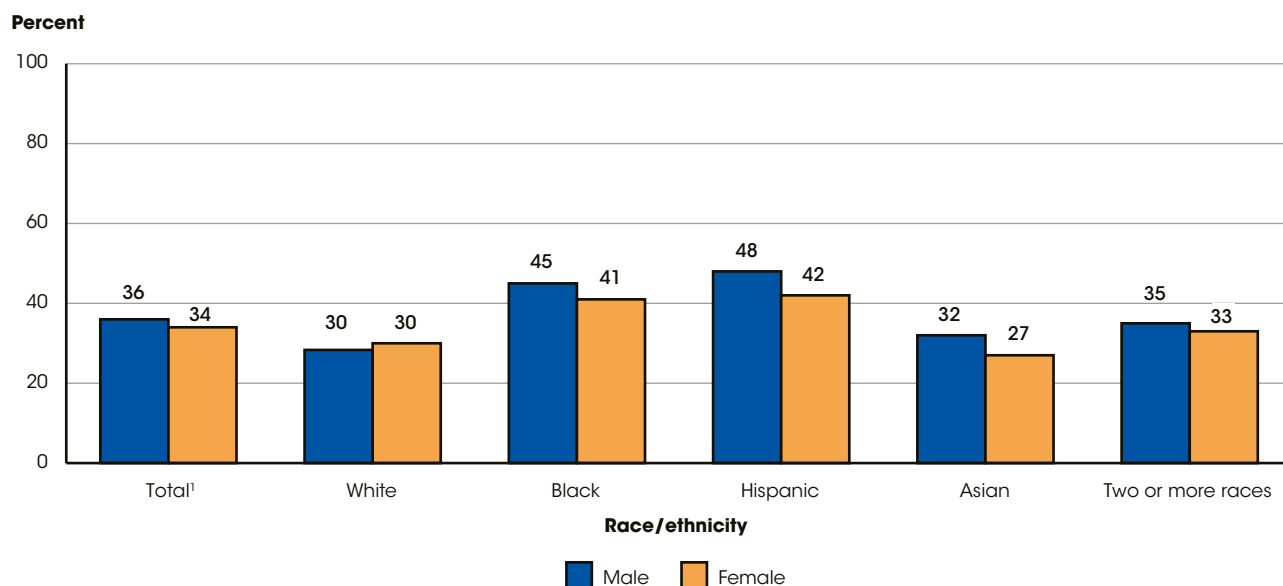


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for American Indian/Alaska Native females and Native Hawaiian/Pacific Islander males and females were not met; therefore, data for American Indians/Alaska Natives and Native Hawaiians/Pacific Islanders are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

**Figure 10-2. Percentage of 9th-graders whose school counselors reported that the primary goal of the school counseling program was helping students improve their achievement in high school, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for American Indian/Alaska Native females and Native Hawaiian/Pacific Islander males and females were not met; therefore, data for American Indians/Alaska Natives and Native Hawaiians/Pacific Islanders are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

**Table 10-1. Percentage of 9th-graders whose school counselors reported selected factors as the primary goal of the school counseling program, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Helping students plan and prepare for postsecondary education	Helping students improve their achievement in high school
<b>Total</b>	<b>48.1</b>	<b>35.4</b>
Sex		
Male	46.9	36.4
Female	49.3	34.3
Race/ethnicity		
White	51.3	30.0
Black	43.7	43.0
Hispanic	41.2	45.0
Asian	60.2	29.7
Native Hawaiian/Pacific Islander	‡	‡
American Indian/Alaska Native	29.1 !	23.3 !
Two or more races	50.2	34.0
Race/ethnicity by sex		
Male		
White	51.2	29.9
Black	40.5	45.1
Hispanic	38.4	48.1
Asian	56.4	32.1
Native Hawaiian/Pacific Islander	‡	‡
American Indian/Alaska Native	33.9 !	24.2 !
Two or more races	49.7	35.0
Female		
White	51.3	30.1
Black	46.5	41.1
Hispanic	44.0	41.9
Asian	64.1	27.2
Native Hawaiian/Pacific Islander	‡	‡
American Indian/Alaska Native	‡	‡
Two or more races	50.7	33.0

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

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## Chapter 3

### Student Behaviors and Afterschool Activities

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Researchers have long studied the links between educational outcomes and students' behaviors and activities outside of school. Some of these behaviors and activities may support high student achievement and persistence, while other behaviors and activities have been associated with negative outcomes. Chapter 3 explores the prevalence of specific behaviors and activities among males and females of various racial/ethnic groups.

Some student activities, such as completing homework and participating in school-sponsored activities, have been linked to higher student achievement, graduation rates, and postsecondary outcomes. Research has generally indicated a positive relationship between educational outcomes and homework completion, although the strength of the relationship varies by grade level and the frequency of and amount of time allocated to homework (Cooper, Robinson, and Patall 2006). Many educators and policymakers see benefits of homework beyond improved test scores and advocate its assignment to students in all grades. For example, homework may be used to reinforce learning by giving students the opportunity to practice material presented in class or to prepare for new material. It can also be used for noninstructional purposes to promote parent-child interaction or facilitate parent-teacher communication (Epstein and Van Voorhis 2001).

Research has also indicated positive relationships between academic indicators and student participation in school-sponsored extracurricular activities. Almost every high school in the United States offers some type of extracurricular activity, such as music, academic clubs, and sports. Some extracurricular activities reinforce lessons learned in the classroom, offering students the opportunity to apply academic skills in a real-world context. Other activities offer opportunities for students to learn the values of teamwork, individual and group responsibility, perseverance, competition, and diversity and to gain a sense of culture and community. Research suggests that participation in extracurricular activities may also increase students' sense of engagement or attachment to their school, decreasing the likelihood of school failure and dropping out (Broh 2002; Finn 1993; Jordan 1999; Jordan and Nettles 1999; Lamborn et al. 1992). Other studies have shown that high school students engaged in extracurricular activities are more likely to experience higher literacy and other test scores, grade point averages, and postsecondary aspirations (Broh 2002; Feldman and Matjasko 2007; Lipscomb 2007; Shulruf, Tumen, and Tolley 2008).

Among the events and behaviors generally associated with poor educational outcomes for students are grade retention and school suspension or expulsion. Children are retained in a grade if they do not exhibit the academic or social skills necessary to advance (e.g., getting along with others, following directions, regulating emotions). These children may experience low academic achievement and motivation, and many may behave in ways that undermine their efforts in school and their community (Jimerson 2001). Other research has confirmed that students suspended from school are at higher risk for other poor school outcomes, including dropping out of school (Ensminger and Slusarick 1992; Grissom and Shepard 1989; Jimerson 1999; Jimerson, Anderson, and Whipple 2002; Jimerson, Ferguson, Whipple, Anderson, and Dalton 2002; Rumberger 1987; Rumberger 1995; Sandoval and Fitzgerald 1985).

Negative behaviors also include crime, victimization, and substance abuse. Victimization at school can have lasting effects: in addition to loneliness, depression, and adjustment difficulties (Crick and Bigbee 1998; Crick and Grotpeter 1996; Nansel et al. 2001; Prinstein, Boergers, and Vernberg 2001; Storch et al. 2003), victimized children are more prone to truancy (Ringwalt, Ennett, and Johnson 2003), poor academic performance (MacMillan and Hagan 2004; Wei and Williams 2004), dropping out of school (Beauvais et al. 1996; MacMillan and Hagan 2004), and violent behaviors (Nansel et al. 2003). Students who use alcohol, cigarettes, and drugs such as marijuana are more likely than their peers to experience low academic achievement, truancy, and other discipline-related issues (Bryant et al. 2003; Bryant and Zimmerman 2002).

Students often seek part-time employment once they reach high school. While summer employment may not affect student achievement, some studies have shown negative effects (e.g., in terms of grades, standardized test scores, and course selections) for students who work during the school year (Singh 1998; Singh and Ozturk 2000). Higher grade point averages in elementary and middle school were correlated with fewer hours worked when students reached 10th grade (Singh 1998). Further, working part time was associated with students taking fewer mathematics and science courses and demonstrating lower mathematics achievement overall (Singh and Ozturk 2000).

## Indicator 11

# Retention, Suspension, and Expulsion

*In 2009, a higher percentage of male than female 9th-grade students had ever been retained in any grade (kindergarten through 9). Also, compared with their female peers, higher percentages of White, Black, and Hispanic male 9th-grade students had ever been suspended or expelled. For example, 42 percent of Black males versus 24 percent of Black females had ever been suspended or expelled.*

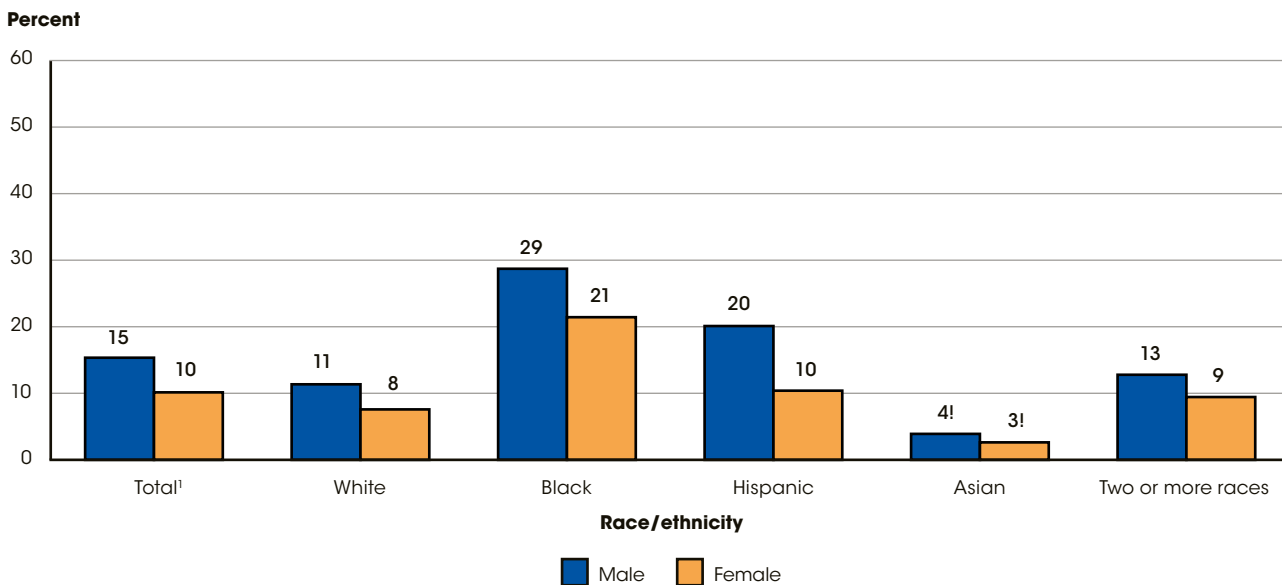
In 2009, according to parent reports, 13 percent of 9th-grade students had been retained in any of grades from kindergarten through 9. Three percent of 9th-grade students had ever had a lapse in school attendance (times when the child stopped going to school for a period of a month or more other than for illness, injury or vacation) and 15 percent had ever been suspended or expelled. The percentage of 9th-grade students whose parents had ever been contacted by their school regarding problem behavior at school was 27 percent. In addition, 19 percent of students had ever had their parents contacted regarding poor attendance at school, and 27 percent had ever had their parents contacted about poor academic performance.

A higher percentage of male than female 9th-grade students had ever been retained in any grade by 2009 (15 vs. 10 percent). This difference was also observed among White and Hispanic males and females (11 vs. 8 percent and 20 vs. 10 percent, respectively), although no measurable differences by sex were found for the other racial/ethnic groups. The percentage of 9th-grade students who had ever been retained was higher among students who were American Indian/Alaska Native (27 percent),

Black (25 percent), and Hispanic (15 percent) than among their White (10 percent) and Asian peers (3 percent) and their peers of two or more races (11 percent). In addition, the percentage of Blacks who had ever been retained was higher than that for Hispanics and the percentages of Whites and students of two or more races were higher than that for Asians. Similar patterns by race/ethnicity were also found among both male and female students.

In 2009, about 19 percent of 9th-grade males had ever been suspended or expelled, compared with 10 percent of 9th-grade females. Higher percentages of White, Black, and Hispanic male students than female students had ever been suspended or expelled. For example, 42 percent of Black males versus 24 percent of Black females had ever been suspended or expelled, a difference of 18 percentage points. Across racial/ethnic groups, suspension or expulsion percentages were higher among Black students (32 percent), American Indian/Alaska Native students (28 percent), and students of two or more races (23 percent) than among their White (10 percent), Hispanic (15 percent), and Asian peers (6 percent). These percentages were also higher for Hispanic students than

**Figure 11-1. Percentage of 9th-grade students who had ever been retained in any of grades kindergarten through 9, by race/ethnicity and sex: 2009**



<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) is 30 percent or greater.

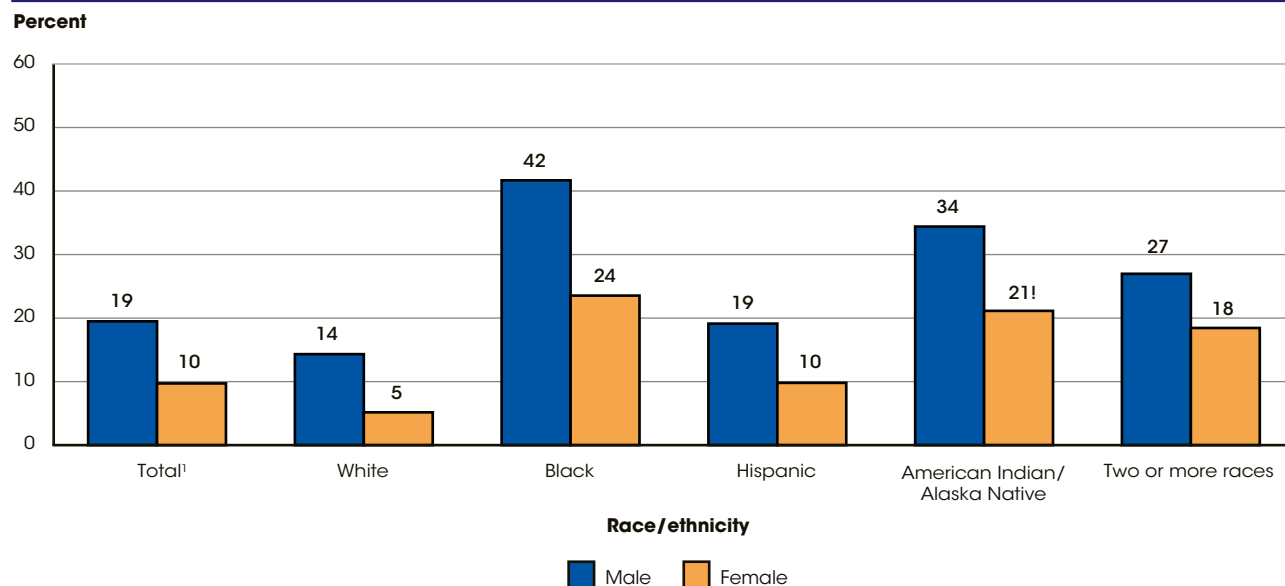
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are based on parent responses. Reporting standards for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native females were not met; therefore, data for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females are not shown in the figure. Data weighted by WIPARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use File.



**Figure 11-2. Percentage of 9th-grade students who had ever been suspended or expelled, by race/ethnicity and sex: 2009**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are based on parent responses. Reporting standards for Asian females and Native Hawaiian/Pacific Islander males and females were not met; therefore, data for Asian and Native Hawaiian/Pacific Islander males and females are not shown in the figure. Data weighted by W1PARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use File.

for White and Asian students. Similar patterns by race/ethnicity were also found among both male and female students.

Thirty-five percent of 9th-grade male students' parents had ever been contacted by their school about problem behavior at school, compared with 19 percent of their female peers. Higher percentages of males than females had reports of problem behavior at school in all racial/ethnic groups except for American Indian/Alaska Natives, for whom there was no measurable difference due to small sample sizes. For instance, the percentage of Black males with reports of problem behavior was 58 percent, compared with 37 percent for Black females. In terms of overall racial/ethnic differences, Black students had a higher percentage of reported problem behavior at school (46 percent) than did their White (20 percent), Hispanic (33 percent), and Asian (13 percent) peers as well as their peers of two or more races (32 percent). Additionally, higher percentages of Hispanic, American Indian/Alaska Native students (44 percent), and students of two or more races had parents who had been contacted

by the school about their problem behavior than did their White and Asian peers. Patterns among males and females by race/ethnicity were generally similar to the overall pattern.

In 2009, a higher percentage of 9th-grade males than females had ever had a parent contacted about their poor academic performance (34 vs. 20 percent). This difference by sex was also found for Whites, Blacks, Hispanics, and students of two or more races. For example, 45 percent of Black males had had a parent contacted about their poor academic performance, compared with 28 percent of their female counterparts. Regarding overall racial/ethnic differences in parent contact for poor academic performance, the percentages were higher for Blacks (35 percent), Hispanics (29 percent), American Indian/Alaska Natives (50 percent), and students of two or more races (34 percent) than for Whites (23 percent) and Asians (11 percent). Racial/ethnic patterns of parent contact for poor academic performance for males and females were generally similar to the overall pattern by race/ethnicity.

## Technical Notes

Data are based on parent responses. The total percentage of students ever retained in any grade (kindergarten through 9) includes responses from parents who did not

indicate the specific grade(s) at which their child was retained.

**Table 11-1. Percentage of 9th-grade students who had ever been retained in a grade, by grade level, sex, and race/ethnicity: 2009**

Race/ethnicity	Ever retained in any grade (kindergarten through 9)			Ever retained in any of grades kindergarten through 5			Ever retained in any of grades 6 through 9		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Total<sup>1</sup></b>	<b>12.8</b>	<b>15.3</b>	<b>10.1</b>	<b>10.4</b>	<b>12.1</b>	<b>8.7</b>	<b>2.9</b>	<b>3.8</b>	<b>1.9</b>
White	9.5	11.3	7.6	7.7	8.9	6.4	2.1	2.9	1.4
Black	24.7	28.7	21.4	19.7	21.5	18.2	6.3	8.7	4.4 !
Hispanic	15.3	20.1	10.4	13.1	16.5	9.6	3.0	4.4	1.6 !
Asian	3.3	3.9 !	2.6 !	3.1	3.8 !	2.4 !	‡	‡	‡
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	26.8	34.9	‡	19.9 !	22.1 !	‡	7.4 !	13.9 !	‡
Two or more races	11.1	12.8	9.4	8.7	10.3	7.2	2.6	2.7 !	2.5 !

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Totals include other racial/ethnic groups not shown separately in the table.

NOTE: Data are based on parent responses. Totals for "ever retained in any grade (kindergarten through 9)" include responses from parents who did not indicate the specific grade(s) at which their child was retained. Students retained more than one time within a specified grade range were only counted one time in the percentage calculations. Data weighted by WIPARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use File.

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**Table 11-2. Percentage of 9th-grade students who had ever experienced various discipline or attendance issues, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Child ever		Parent ever contacted by the school about child's			
	Had a lapse in school attendance <sup>1</sup>	Been suspended or expelled	Problem behavior at school			
			Total	1–2 times	3–4 times	More than 4 times
<b>Total<sup>2</sup></b>	<b>2.7</b>	<b>14.6</b>	<b>27.2</b>	<b>19.8</b>	<b>3.8</b>	<b>3.6</b>
Sex						
Male	3.1	19.5	35.1	24.7	5.1	5.3
Female	2.3	9.7	19.1	14.8	2.5	1.8
Race/ethnicity						
White	2.7	9.9	20.1	15.2	2.5	2.4
Black	2.3	31.6	46.2	32.1	6.9	7.1
Hispanic	2.6	14.5	33.1	23.9	4.9	4.3
Asian	4.1 !	5.9 !	12.9	12.3	0.4 !	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	28.4	44.0	23.3	13.5 !	‡
Two or more races	1.5	22.7	32.3	21.6	5.2	5.4
Race/ethnicity by sex						
Male						
White	2.8	14.3	27.0	19.9	3.5	3.5
Black	3.1	41.7	58.0	36.1	9.7	12.2
Hispanic	3.6	19.1	42.5	30.1	6.4	6.0
Asian	3.2 !	10.7 !	19.9	19.2	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	34.4	51.3	22.5	21.6 !	‡
Two or more races	1.6 !	27.0	42.7	27.9	6.4	8.3
Female						
White	2.5	5.2	12.6	10.1	1.4	1.1
Black	1.7 !	23.5	36.6	28.8	4.7	3.0 !
Hispanic	1.5	9.8	23.5	17.6	3.4 !	2.6 !
Asian	5.0 !	‡	5.9	5.4 !	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	21.1 !	35.2	24.1 !	‡	‡
Two or more races	1.4 !	18.4	22.3	15.6	4.0	2.7 !

See notes at end of table.

**Table 11-2. Percentage of 9th-grade students who had ever experienced various discipline or attendance issues, by sex and race/ethnicity: 2009—Continued**

Sex and race/ethnicity	Parent ever contacted by the school about child's							
	Poor attendance at school				Poor academic performance			
	Total	1–2 times	3–4 times	More than 4 times	Total	1–2 times	3–4 times	More than 4 times
<b>Total<sup>2</sup></b>	<b>18.8</b>	<b>12.8</b>	<b>2.8</b>	<b>3.2</b>	<b>26.7</b>	<b>19.1</b>	<b>4.2</b>	<b>3.4</b>
<b>Sex</b>								
Male	19.5	13.0	3.1	3.3	33.6	22.9	5.7	5.1
Female	18.2	12.6	2.5	3.1	19.6	15.2	2.6	1.8
<b>Race/ethnicity</b>								
White	12.8	8.7	1.7	2.4	23.5	17.1	3.5	2.9
Black	22.2	14.7	4.2	3.3	35.5	24.6	6.9	4.0
Hispanic	31.5	21.6	5.0	4.9	28.7	20.9	3.9	4.0
Asian	9.1	7.6	‡	0.6 !	10.7	7.7	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	43.0	25.0	‡	15.1 !	50.0	26.2	‡	20.4
Two or more races	20.1	13.5	2.7	3.9	33.7	22.8	6.2	4.7
<b>Race/ethnicity by sex</b>								
<b>Male</b>								
White	13.4	8.7	1.9	2.7	30.3	21.4	5.0	4.0
Black	25.1	15.1	5.5	4.4	45.0	27.8	9.6	7.6
Hispanic	31.3	21.5	5.5	4.2	36.7	25.2	5.4	6.1
Asian	10.4	9.2	‡	‡	12.9	11.7 !	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	39.9	19.4 !	‡	‡	51.2	16.8 !	‡	28.3 !
Two or more races	20.9	15.5	2.5 !	2.9	38.9	24.1	8.1 !	6.7
<b>Female</b>								
White	12.2	8.6	1.5	2.0	16.1	12.5	1.9	1.7
Black	19.9	14.3	3.2 !	2.5 !	27.8	22.0	‡	1.1 !
Hispanic	31.7	21.6	4.4	5.6	20.5	16.4	2.4 !	1.8 !
Asian	7.9	6.1 !	‡	1.1 !	8.6 !	3.7 !	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	46.8	31.9 !	‡	‡	48.6	37.5 !	‡	‡
Two or more races	19.3	11.7	2.9 !	4.8	28.7	21.5	4.4	2.7 !

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Lapses in school attendance include times when the child stopped going to school for a period of a month or more other than for illness, injury, or vacation.

<sup>2</sup> Totals include other racial/ethnic groups not shown separately in the table.

NOTE: Data are based on parent responses. Detail may not sum to totals because of rounding. Data weighted by W1PARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use File.

## Indicator 12 Safety at School

*In 2009, a higher percentage of male than female students reported being threatened or injured with a weapon on school property in the past 12 months (10 vs. 5 percent). This pattern between males and females was also observed among White, Black, Hispanic, and Asian students as well as students of two or more races.*

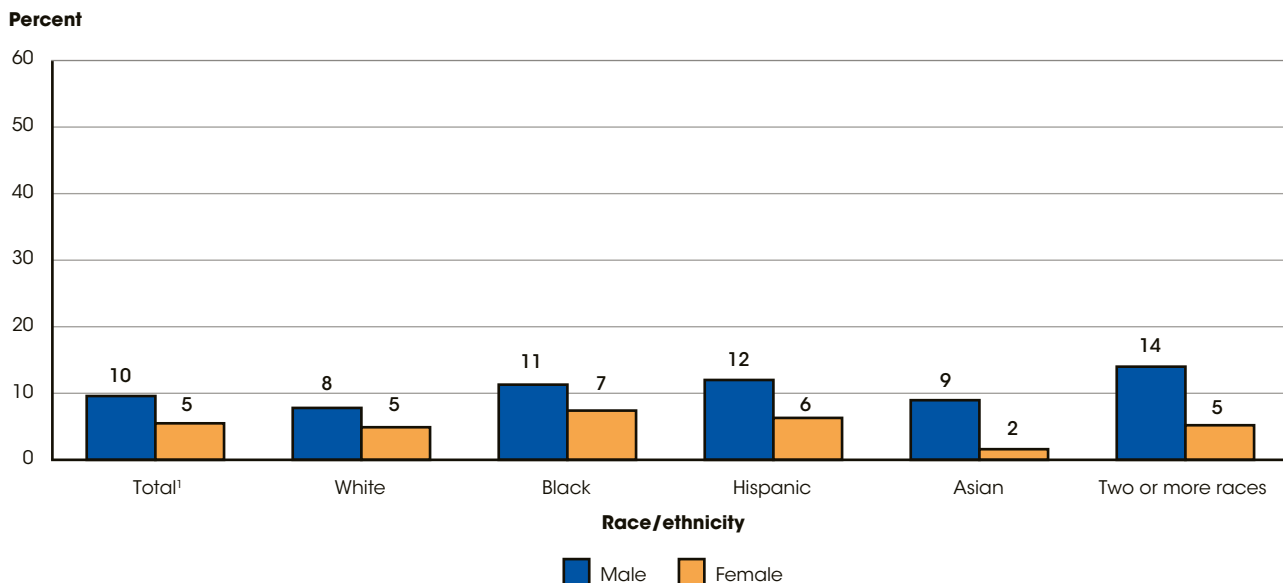
In 2009, some 8 percent of students in grades 9 through 12 reported that they had been threatened or injured with a weapon on school property, 11 percent reported that they had engaged in a physical fight on school property, and 23 percent reported that drugs were available to them on school property in the past 12 months. Drug availability includes being offered, sold, or given an illegal drug. Six percent of students reported carrying a weapon on school property on one or more of the past 30 days. Weapons include items such as guns, knives, and clubs. Overall, higher percentages of male than female students reported having each of these experiences.

Higher percentages of American Indian/Alaska Native students reported being threatened or injured with a weapon in 2009 (17 percent) than did their peers of all other races/ethnicities (between 5 and 9 percent), except Native Hawaiian/Pacific Islanders (13 percent) for whom this apparent difference was not measurable. In addition, the percentage of students who reported being threatened or injured with a weapon was higher for Blacks and Hispanics (9 percent each) than for Whites (6 percent) and Asians (5 percent). A higher percentage of male than female students reported being threatened or injured

with a weapon both overall and among White, Black, Hispanic, and Asian students, as well as students of two or more races. For example, 12 percent of Hispanic males reported having this experience, compared with 6 percent of their female peers. Among both males and females, differences in the percentage of students who were threatened or injured with a weapon were also found by race/ethnicity. For instance, among male students, a lower percentage of Whites were threatened or injured with a weapon (8 percent) than were Blacks (11 percent), Hispanics (12 percent), and persons of two or more races (14 percent).

In 2009, the percentage of students who reported carrying a weapon on school property was lower for Asian students (4 percent) than for White (6 percent), Hispanic (6 percent), and Native Hawaiian/Pacific Islander students (10 percent). The percentages for Black students and students of two or more races were 5 and 6 percent, respectively. Higher percentages of male students overall as well as White, Hispanic, and Asian male students carried a weapon on school property than their female peers. No measurable differences in the percentages of students carrying a weapon on school property were

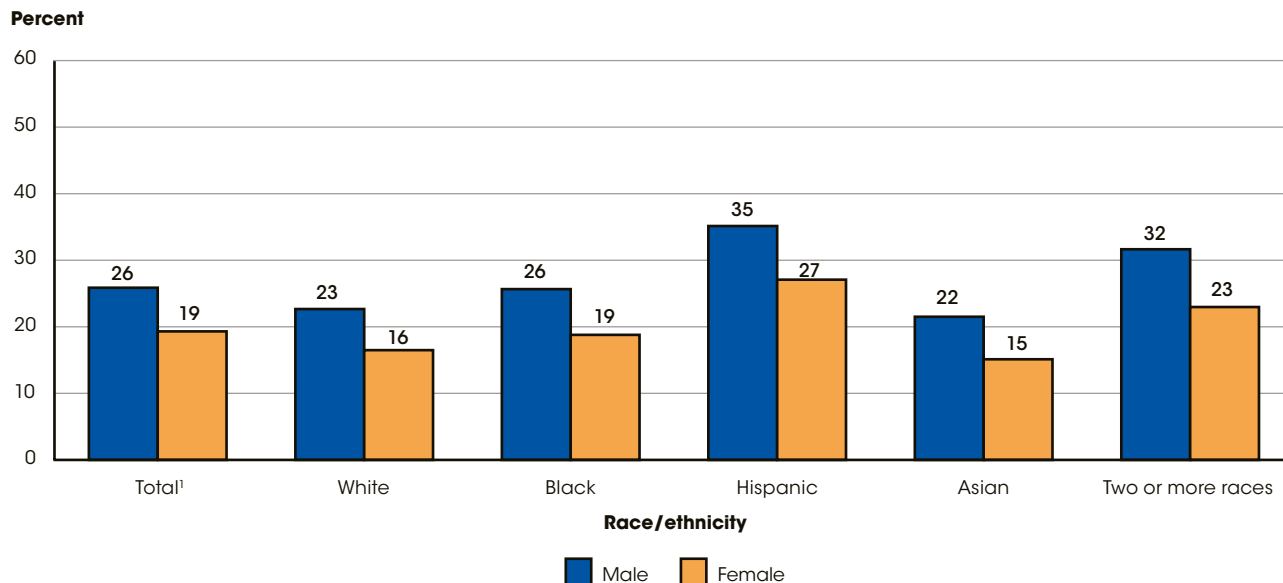
**Figure 12-1. Percentage of students in grades 9 through 12 who reported that they were threatened or injured with a weapon on school property during the past 12 months, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Weapons include items such as guns, knives, and clubs. Reporting standards for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. SOURCE: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System (YRBSS), 2009.

**Figure 12-2. Percentage of students in grades 9 through 12 who reported that drugs were made available to them on school property during the past 12 months, by race/ethnicity and sex: 2009**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System (YRBSS), 2009.

found among males by race/ethnicity: between 6 and 8 percent of males reported carrying a weapon on school property. Among female students, a lower percentage of Asians (1 percent) than Whites (2 percent), Blacks and Hispanics (4 percent each), and those of two or more races (5 percent) reported carrying a weapon on school property; in addition, the percentage was lower for White females than for Hispanic females.

Student reports of engaging in a physical fight varied by race/ethnicity in 2009. Higher percentages of American Indian/Alaska Native (21 percent), Black (17 percent), Native Hawaiian/Pacific Islander (15 percent), and Hispanic students (14 percent) reported engaging in a fight than their White and Asian peers did (9 and 8 percent, respectively). The percentage was also higher for Black students than for Hispanic students. A higher percentage of male than female students reported engaging in a physical fight both overall and among White, Black, Hispanic, and Asian students, as well as students of two or more races. For example, 22 percent of Black males versus 12 percent of Black females reported

engaging in a physical fight. Higher percentages of Black and Hispanic males (18 percent each) engaged in a physical fight than White (12 percent) and Asian (11 percent) males. Some of these patterns by race/ethnicity were also observed among female students.

In 2009, higher percentages of American Indian/Alaska Native and Hispanic students reported that drugs were made available to them (34 and 31 percent, respectively) than White (20 percent), Black (22 percent), and Asian students (18 percent) did. Reports of drug availability were also higher for males than females overall as well as among Whites, Blacks, and Hispanics. For instance, 35 percent of Hispanic males reported that drugs were made available to them, compared with 27 percent of Hispanic females. Higher percentages of Hispanic males and females and males and females of two or more races reported that drugs were made available to them than did their White and Asian counterparts. In addition, for both males and females, a higher percentage of Hispanic than Black students reported drug availability.

**Table 12-1. Percentage of students in grades 9 through 12 who reported that they were threatened or injured with a weapon on school property, carried a weapon on school property, engaged in a physical fight on school property, or reported that drugs were made available to them on school property, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Were threatened or injured with a weapon on school property <sup>1</sup>	Carried a weapon on school property <sup>2</sup>	Engaged in a physical fight on school property <sup>1</sup>	Drugs were available on school property <sup>1</sup>
<b>Total</b>	<b>7.7</b>	<b>5.6</b>	<b>11.1</b>	<b>22.7</b>
<b>Sex</b>				
Male	9.6	8.1	15.1	25.9
Female	5.5	2.9	6.7	19.3
<b>Race/ethnicity</b>				
White	6.5	5.6	8.6	19.8
Black	9.4	5.3	17.4	22.2
Hispanic	9.1	5.8	13.6	31.2
Asian	5.5	3.6	7.7	18.3
Native Hawaiian/Pacific Islander	12.5	9.8	14.8	27.6
American Indian/Alaska Native	16.5	4.2	20.7	34.0
Two or more races	9.2	5.8	12.4	26.9
<b>Race/ethnicity by sex</b>				
<b>Male</b>				
White	7.8	8.3	12.4	22.7
Black	11.3	6.7	22.2	25.7
Hispanic	12.0	7.9	17.7	35.1
Asian	9.5	6.3	11.4	21.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	14.0	7.3	18.3	31.7
<b>Female</b>				
White	4.9	2.4	4.3	16.5
Black	7.4	4.0	12.5	18.8
Hispanic	6.3	3.7	9.3	27.1
Asian	1.6	0.9	4.1	15.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	5.2	4.7	7.5	23.0

‡ Reporting standards not met (too few cases).

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

<sup>2</sup> On one or more of the past 30 days.

NOTE: Weapons include items such as guns, knives, and clubs. Drug availability includes being offered, sold, or given an illegal drug. Race categories exclude persons of Hispanic ethnicity.

SOURCE: Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Surveillance System (YRBSS), 2009.



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## Indicator 13 Alcohol and Other Drug Use

*In 2009, there were no measurable differences in the percentages of male and female students in grades 9 through 12 who reported the use of alcohol, either overall or among the various racial/ethnic groups. In contrast, among Whites, Blacks, Hispanics, and Asians, higher percentages of males than females reported using marijuana.*

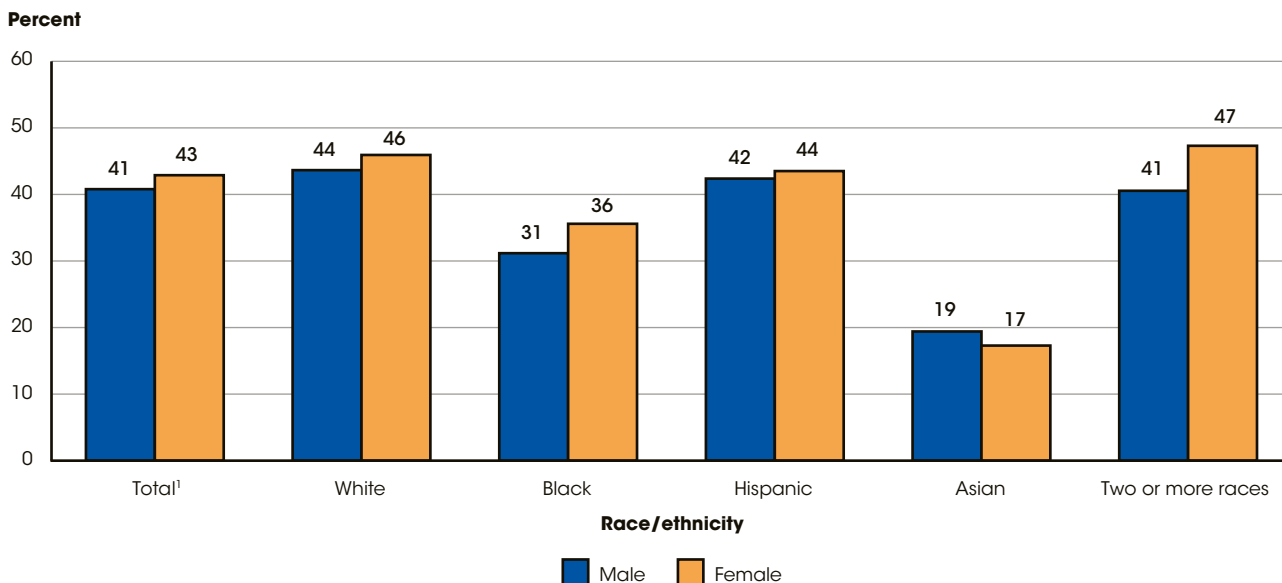
In 2009, some 19 percent of students in grades 9 through 12 reported having smoked a cigarette, 42 percent reported having drunk alcohol, and 21 percent reported having smoked marijuana on one or more of the past 30 days. Six percent of students reported having ever used cocaine, 12 percent reported having ever used inhalants, and 4 percent reported having ever used methamphetamines. Overall, higher percentages of males than females reported having smoked marijuana in the past month, ever used cocaine, and ever used methamphetamines in 2009; in contrast, a higher percentage of females than males reported having ever used inhalants. Inhalant use includes sniffing glue, breathing the contents of aerosol spray cans, or inhaling any paints or sprays to get high.

A lower percentage of Asian students drank alcohol than did their peers in other racial/ethnic groups in 2009 (18 percent vs. 33 to 45 percent). In addition, a lower percentage of Black students (33 percent) drank

alcohol than did their peers who were White (45 percent), Hispanic (43 percent), and of two or more races (44 percent). No measurable differences in the percentage of students who drank alcohol were found by sex, either overall or between males and females of the various racial/ethnic groups. For both males and females, however, higher percentages of White and Hispanic students and students of two or more races drank alcohol than did their Black and Asian peers. The percentages were also higher for Black males and females than for Asian males and females. For instance, 19 percent of Asian males and 31 percent of Black males reported drinking alcohol, compared with 41 percent of males of two or more races, 42 percent of Hispanic males, and 44 percent of White males.

In 2009, the percentage of students who used marijuana was lower for Asian students than for their counterparts of other races/ethnicities (7 percent vs. 21 to 32 percent). The percentage was also lower for White students than

**Figure 13-1. Percentage of students in grades 9 through 12 who reported use of alcohol on one or more of the past 30 days, by race/ethnicity and sex: 2009**

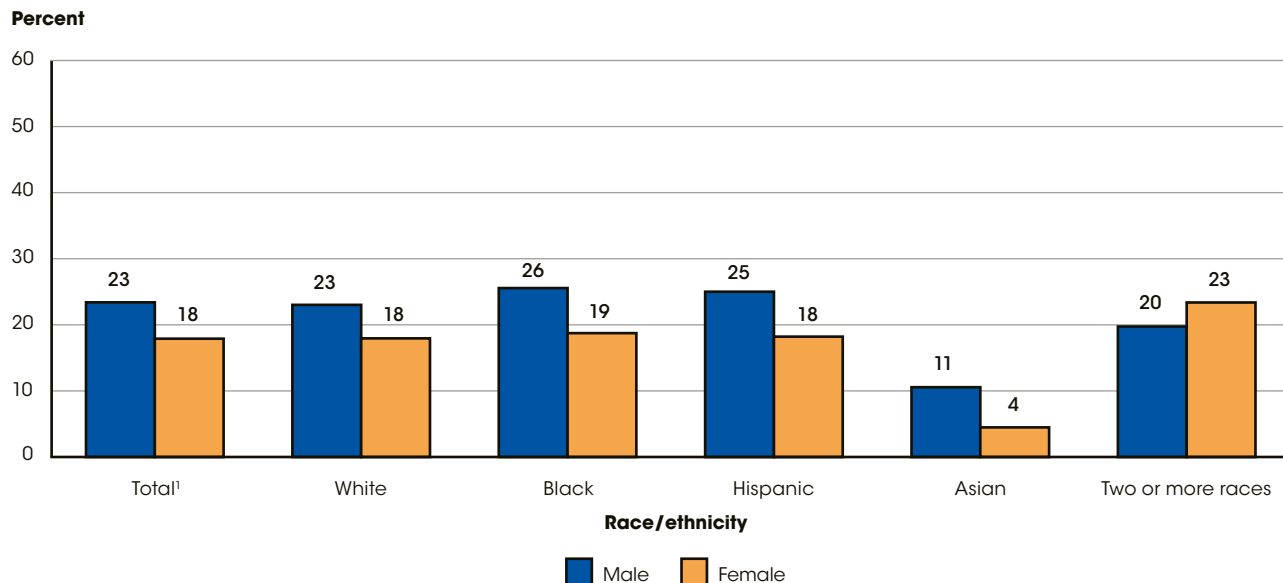


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS), "Youth Risk Behavior Survey" (YRBS), 2009.

**Figure 13-2. Percentage of students in grades 9 through 12 who reported use of marijuana on one or more of the past 30 days, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS), "Youth Risk Behavior Survey" (YRBS), 2009.

for American Indian/Alaska Native students (21 vs. 32 percent). Differences by sex were seen among White, Black, Hispanic, and Asian students. For example, 26 percent of Black males reported marijuana use, compared with 19 percent of Black females. For both male and female students, reported marijuana use was less prevalent for Asian students than it was for their White, Black, and

Hispanic peers and for their peers of two or more races. Among males, for example, 11 percent of Asians reported smoking marijuana, compared with 20 percent of persons of two or more races, 23 percent of Whites, 25 percent of Hispanics, and 26 percent of Blacks.

**Table 13-1. Percentage of students in grades 9 through 12 who reported use of alcohol and other drugs, by type of drug, sex, and race/ethnicity: 2009**

Sex and race/ethnicity	Used on one or more of the past 30 days			Ever used		
	Alcohol	Marijuana	Cigarettes	Cocaine	Inhalants <sup>1</sup>	Methamphetamines <sup>2</sup>
<b>Total</b>	<b>41.8</b>	<b>20.8</b>	<b>19.5</b>	<b>6.4</b>	<b>11.7</b>	<b>4.1</b>
<b>Sex</b>						
Male	40.8	23.4	19.8	7.3	10.6	4.7
Female	42.9	17.9	19.1	5.3	12.9	3.3
<b>Race/ethnicity</b>						
White	44.7	20.7	22.5	6.3	11.5	3.8
Black	33.4	22.2	9.5	2.9	8.2	2.7
Hispanic	42.9	21.6	18.0	9.4	14.0	5.7
Asian	18.3	7.5	7.5	3.9	9.7	3.1
Native Hawaiian/Pacific Islander	34.8	24.8	24.8	8.5	12.9	7.7
American Indian/Alaska Native	42.8	31.6	37.1	11.0	21.5	11.0
Two or more races	44.3	21.7	19.8	6.0	15.1	4.6
<b>Race/ethnicity by sex</b>						
<b>Male</b>						
White	43.7	23.0	22.3	7.1	10.4	4.2
Black	31.2	25.6	10.7	4.3	7.1	4.5
Hispanic	42.4	25.0	19.4	10.1	12.8	6.1
Asian	19.4	10.6	8.9	5.2	10.8	3.2!
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	40.6	19.7	16.6	8.1	12.5	5.3
<b>Female</b>						
White	45.9	18.0	22.8	5.4	12.8	3.2
Black	35.6	18.7	8.4	‡	9.4	1.0!
Hispanic	43.5	18.2	16.7	8.7	15.3	5.2
Asian	17.3	4.5!	6.2	2.7!	8.7	3.1!
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	47.3	23.4	22.5	4.3!	17.4	4.0!

! Interpret with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Includes sniffing glue, breathing the contents of aerosol spray cans, or inhaling any paints or sprays to get high.

<sup>2</sup> Also called "speed," "crystal," "crank," or "ice."

NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS), "Youth Risk Behavior Survey" (YRBS), 2009.

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## Indicator 14 Homework

*Most high school students (91 percent of males and 95 percent of females) did some homework outside of school in 2007. The percentage of high school students whose parents checked for homework completion was higher for males (68 percent) than for females (61 percent).*

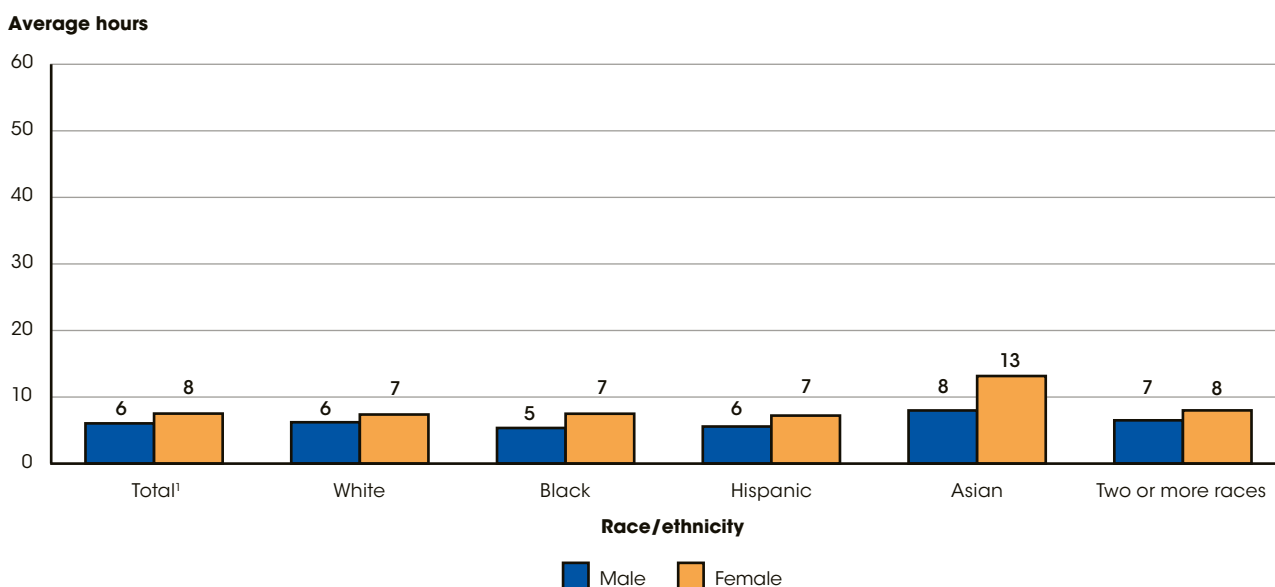
In 2007, according to parent reports, 93 percent of high school students (in grades 9 through 12) did some homework outside of school. Among these students, the frequency of doing homework outside of school varied: 5 percent did homework infrequently (less than one day per week), 15 percent did homework 1 to 2 days per week, 38 percent did homework 3 to 4 days per week, and 42 percent did homework very frequently (5 or more days per week). In addition, the parents of 65 percent of high school students checked to ensure that their homework was completed.

Each week, high school students who did homework outside of school in 2007 did an average of 7 hours of homework outside of school. On average, Asian students spent more time doing homework each week (10 hours) than did their White, Black, and Hispanic peers and their peers of two or more races (between 6 and 7 hours); this racial/ethnic pattern also held among female students. Overall, female students did more hours of homework each week, on average, than male students (8 vs. 6 hours). The same pattern between males and females was

observed within the White, Black, Hispanic, and Asian racial/ethnic groups. For example, Black females did 7 hours of homework outside of school each week, on average, compared with an average of 5 hours for Black males. Among male students, the average number of hours of homework done each week was greater for Asians (8 hours) than it was for Blacks (5 hours) and Hispanics (6 hours); the percentages for White students and students of two or more races were 6 and 7 percent, respectively.

The percentage of students whose parents checked for homework completion was higher among Blacks (83 percent) and Hispanics (76 percent) than Whites (57 percent) and Asians (59 percent). In addition, checking for homework completion was more prevalent among the parents of Black students than the parents of students of two or more races (64 percent). Overall, a higher percentage of parents of male students checked for homework completion (68 percent) than did the parents of female students (61 percent); this finding also held for White males and females. Among males, checking for homework completion was more prevalent among the

**Figure 14-1. Average hours per week spent on homework for high school students (grades 9 through 12) who did homework outside of school, by race/ethnicity and sex: 2007**

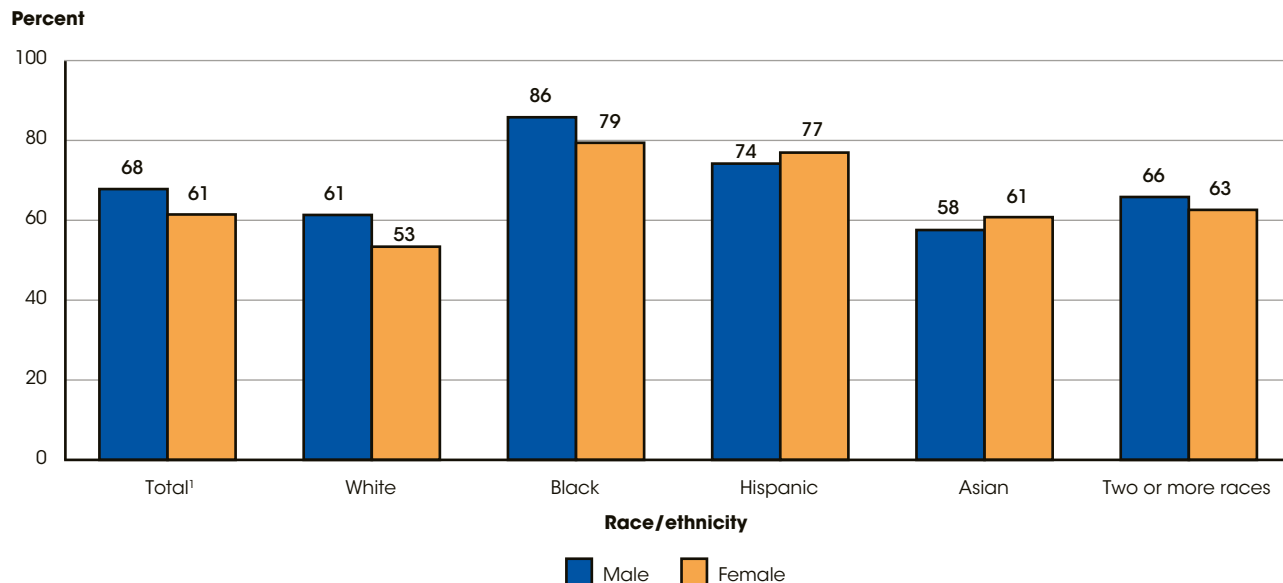


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data based on responses of the parent most knowledgeable about the student's education. Analysis excludes homeschooled students. Reporting standards for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

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

**Figure 14-2. Among high school students (grades 9 through 12) who did homework outside of school, percentage whose parents checked that homework was completed, by race/ethnicity and sex: 2007**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data based on responses of the parent most knowledgeable about the student's education. Analysis excludes homeschooled students. Reporting standards for Native Hawaiian/Pacific Islander students and American Indian/Alaska Native students were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

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

parents of Blacks (86 percent) than among the parents of Whites (61 percent), Hispanics (74 percent), and Asians (58 percent) and the parents of males of two or more races (66 percent) and the parents of females of two or more races (63 percent).

## Technical Notes

The analysis excludes homeschooled students. The term parent refers to one or more parents or other household

adults. Data are based on the responses of the parent most knowledgeable about the student's education.

**Table 14-1. Percentage of high school students (grades 9 through 12) who did homework outside of school, average hours per week spent on homework, frequency of doing homework, and percentage of students whose parents checked that homework was done, by sex and race/ethnicity: 2007**

Sex and race/ethnicity	Percent of students who did homework outside of school	Students who did homework outside of school					Percent of students whose parents <sup>1</sup> checked that homework was done
		Average hours per week spent on homework	Frequency of doing homework				
			Less than once per week	1 to 2 days per week	3 to 4 days per week	5 or more days per week	
<b>Total<sup>2</sup></b>	<b>93.0</b>	<b>6.8</b>	<b>5.4</b>	<b>14.8</b>	<b>38.0</b>	<b>41.9</b>	<b>64.6</b>
Sex							
Male	91.2	6.0	7.4	18.4	38.2	36.0	67.8
Female	94.9	7.5	3.3	11.2	37.7	47.8	61.5
Race/ethnicity							
White	94.5	6.8	4.2	12.9	38.6	44.3	57.2
Black	91.8	6.3	‡	20.1	41.0	29.7	83.1
Hispanic	90.7	6.4	5.9	17.7	36.6	39.8	75.5
Asian	93.6	10.3	#	13.8!	18.5!	67.7	59.0
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	86.7	7.2	‡	9.9	34.1	50.2	64.4
Race/ethnicity by sex							
Male							
White	92.3	6.2	6.1	16.9	38.6	38.3	61.3
Black	91.7	5.4	‡	21.1	41.9	24.1	85.8
Hispanic	89.7	5.6	7.2	21.6	37.1	34.1	74.2
Asian	89.0	8.0	#	‡	30.1!	53.8	57.6
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	86.1	6.5	‡	10.6!	31.7	47.4	65.8
Female							
White	96.7	7.4	2.5	9.3	38.6	49.7	53.4
Black	91.9	7.5	‡	18.8	39.7	37.1	79.4
Hispanic	91.7	7.2	4.5!	13.8	36.1	45.6	77.0
Asian	100.0	13.2	#	10.8!	‡	85.2	60.8
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	87.5	8.0	#	8.9!	37.2	53.9	62.6

# Rounds to zero.

! Interpret with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) for this estimate is 50 percent or greater.

<sup>1</sup> Refers to one or more parent or other household adult.<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data based on responses of the parent most knowledgeable about the student's education. Analysis excludes homeschooled students. Reporting standards for Native Hawaiian/Pacific Islander students and American Indian/Alaska Native students were not met; therefore, data for these groups are not shown in the table. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

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



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## Indicator 15 Part-Time Work

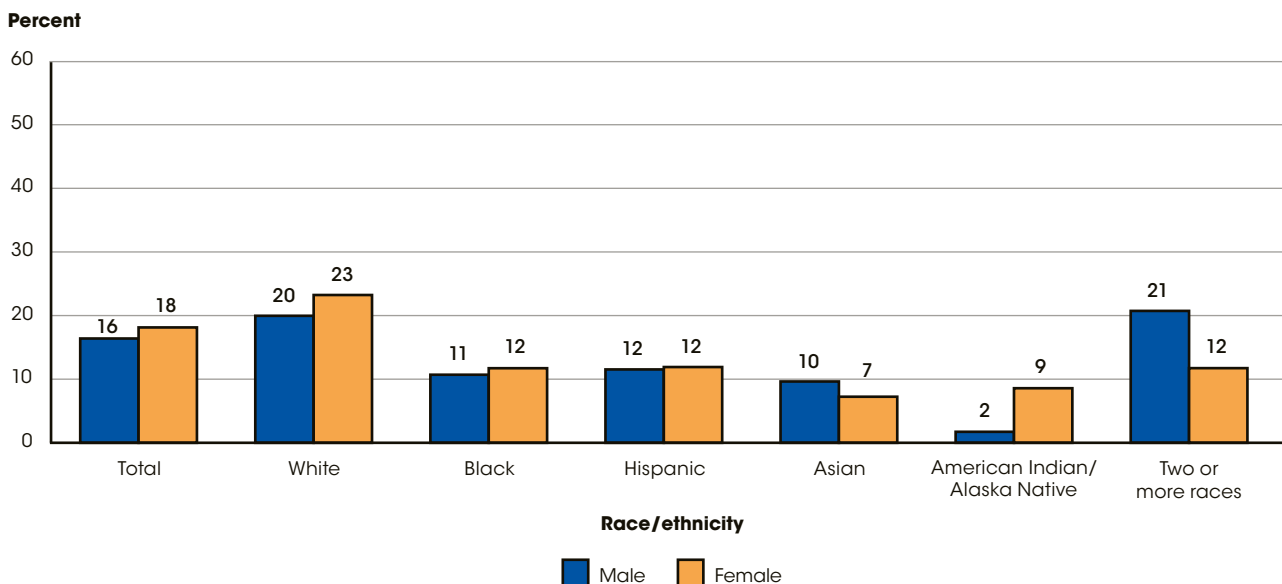
The percentages of White male and female high school students who were employed in 2010 were higher than the percentages of male and female high school students of other races/ethnicities who were employed, including Blacks, Hispanics, and American Indians/Alaska Natives. Among high school students who worked, however, the percentages of Black and Hispanic males who worked more than 20 hours per week were higher than the percentage of White males who did so.

In 2010, about 17 percent of high school students ages 16 and older were employed. A higher percentage of female than male students were employed, both overall and among White and American Indian/Alaska Native students. For example, among American Indians/Alaska Natives, 9 percent of females versus 2 percent of males were employed. In terms of overall racial/ethnic differences, higher percentages of White students and students of two or more races were employed than their peers in the other racial/ethnic groups. The employment percentages were as follows: Whites (22 percent), persons of two or more races (17 percent), Hispanics (12 percent), Blacks (11 percent), Asians (8 percent), and American Indians/Alaska Natives (5 percent). Employment percentages were also higher for Blacks and Hispanics than for Asians and American Indians/Alaska Natives. Racial/ethnic patterns for male students were generally similar to the overall racial/ethnic pattern. Among females, a higher percentage of White students than of Black, Hispanic, Asian, and American Indian/Alaska

Native students were employed. The percentages of females who were employed were also higher for Black and Hispanic students and students of two or more races than for Asian students.

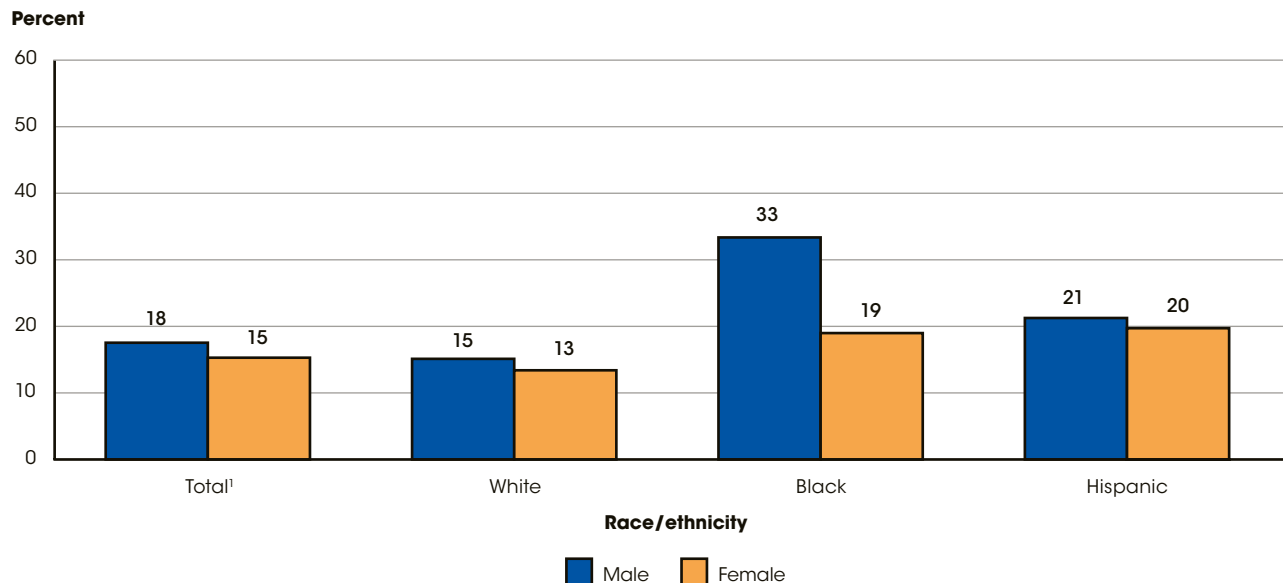
The number of hours that students who were employed in 2010 worked each week varied: 29 percent worked less than 10 hours, 55 percent worked 10–20 hours, and 16 percent worked more than 20 hours. A higher percentage of employed males than employed females worked more than 20 hours per week, both overall and among Blacks (33 vs. 19 percent). In terms of overall differences by race/ethnicity in the percentages of employed students who worked more than 20 hours per week, the percentages of Black and Hispanic students working at this level (26 and 21 percent, respectively) were higher than the percentages of White students and students of two or more races working at this level (14 and 13 percent, respectively). In addition, the percentage of Black students working at this level was higher than the percentage of Hispanic students

**Figure 15-1. Percentage of employed high school students ages 16 and older, by race/ethnicity and sex: 2010**



NOTE: High school students include those in grades 9 through 12. Employment status refers to the full calendar week prior to the week when the respondent answered the questions. Estimates include those who worked zero hours in the previous week. Reporting standards were not met for Native Hawaiians/Pacific Islanders; therefore, data for this racial group is not shown in the figure. Race categories exclude persons of Hispanic ethnicity.  
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2010.

**Figure 15-2. Percentage of employed high school students ages 16 and older who worked more than 20 hours per week, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: High school students include those in grades 9 through 12. Employment status refers to the full calendar week prior to the week when the respondent answered the questions. Reporting standards were not met for Asian males and females, Native Hawaiian/Pacific Islander males and females, American Indian/Alaska Native males and females, and males and females of two or more races; therefore, data for these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2010.

doing so. Among males, the percentages of employed students who worked more than 20 hours per week were higher for Blacks and Hispanics than for Whites and were

higher for Blacks than for Hispanics. Among employed female students, the percentage working at this level was higher for Hispanics than for Whites.

### Technical Notes

High school students include those in grades 9 through 12. Employment status refers to the full calendar week prior to the week when the respondent answered the

questions. Estimates for those employed include those who worked zero hours in the previous week.

**Table 15-1. Percentage of high school students ages 16 and older who were employed and the percentage distribution of hours worked per week, by sex and race/ethnicity: 2010**

Sex and race/ethnicity	Percent employed	Percent distribution of hours worked per week		
		Less than 10 hours	10–20 hours	More than 20 hours
<b>Total</b>	<b>17.2</b>	<b>29.0</b>	<b>54.6</b>	<b>16.4</b>
Sex				
Male	16.4	28.8	53.7	17.5
Female	18.1	29.2	55.5	15.3
Race/ethnicity				
White	21.5	31.7	54.0	14.2
Black	11.2	20.6	53.4	26.0
Hispanic	11.7	18.5	61.0	20.5
Asian	8.4	39.7	39.6	20.8
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	4.7	‡	‡	‡
Two or more races	17.0	28.1	59.2	12.7
Race/ethnicity by sex				
Male				
White	20.0	31.8	53.1	15.1
Black	10.7	18.3	48.3	33.4
Hispanic	11.5	18.4	60.3	21.3
Asian	9.6	‡	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	1.7	‡	‡	‡
Two or more races	20.7	‡	‡	‡
Female				
White	23.2	31.6	55.0	13.4
Black	11.7	22.8	58.2	19.0
Hispanic	11.9	18.6	61.6	19.7
Asian	7.2	‡	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	8.6	‡	‡	‡
Two or more races	11.7	‡	‡	‡

‡ Reporting standards not met (too few cases).

NOTE: High school students include those in grades 9 through 12. Employment status refers to the full calendar week prior to the week when the respondent answered the questions. Estimates include those who worked zero hours in the previous week. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2010.

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## Indicator 16

# School-Sponsored and Non-School-Sponsored Activities

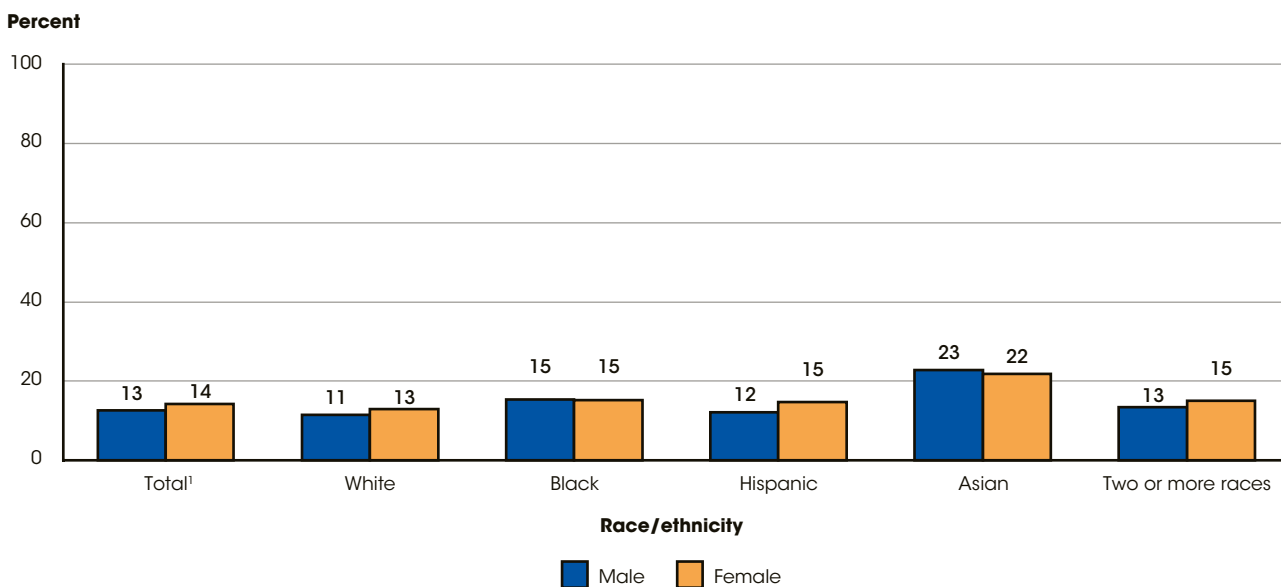
*As of 2009, thirteen percent of 9th-grade students had participated in at least one math- or science-related school-sponsored activity in the previous year. No measurable differences in the percentage of students who participated were found between males and females, either overall or by race/ethnicity.*

As of 2009, thirteen percent of 9th-grade students had participated in at least one math- or science-related school-sponsored activity in the previous year, and 4 percent had participated in more than one of these activities. Specifically, 10 percent of students reported participation in a math-related school-sponsored activity, and 6 percent reported participation in a science-related school-sponsored activity. No measurable differences in the percentage of students who participated in at least one activity were found between males and females, either overall or by race/ethnicity. A higher percentage of Asian 9th-grade students participated in at least one math- or science-related school-sponsored activity (22 percent) than did their White, Black, Hispanic, and American Indian/Alaska Native peers or their peers of two or more races (between 12 and 15 percent). This overall racial/ethnic pattern was also observed among males and females.

As of 2009, eighty-six percent of 9th-grade students had participated in at least one non-school-sponsored activity in the previous year, and 62 percent had participated in

more than one. These non-school-sponsored activities included the performing arts, namely music, art, dance, or theater (35 percent); organized sports (55 percent); religious youth group or religious instruction (51 percent); scouting or other youth organization (23 percent); academic instruction (18 percent); math or science camp (4 percent); and other camps (24 percent). No measurable differences in the percentage of students who participated in at least one activity were found between males and females, either overall or by race/ethnicity. A higher percentage of White 9th-grade students participated in at least one non-school-sponsored activity than did their Black, Hispanic, Asian, and American Indian/Alaska Native peers (90 percent vs. between 77 and 85 percent). The percentage of students of two or more races who participated in at least one non-school-sponsored activity (87 percent) was not measurably different from the percentage of Whites doing so. Differences by race/ethnicity in the percentage of students who participated in non-school-sponsored activities were also found among male and female students. Among males, higher

**Figure 16-1. Percentage of 9th-grade students participating in at least one math- or science-related school-sponsored activity, by race/ethnicity and sex: 2009**

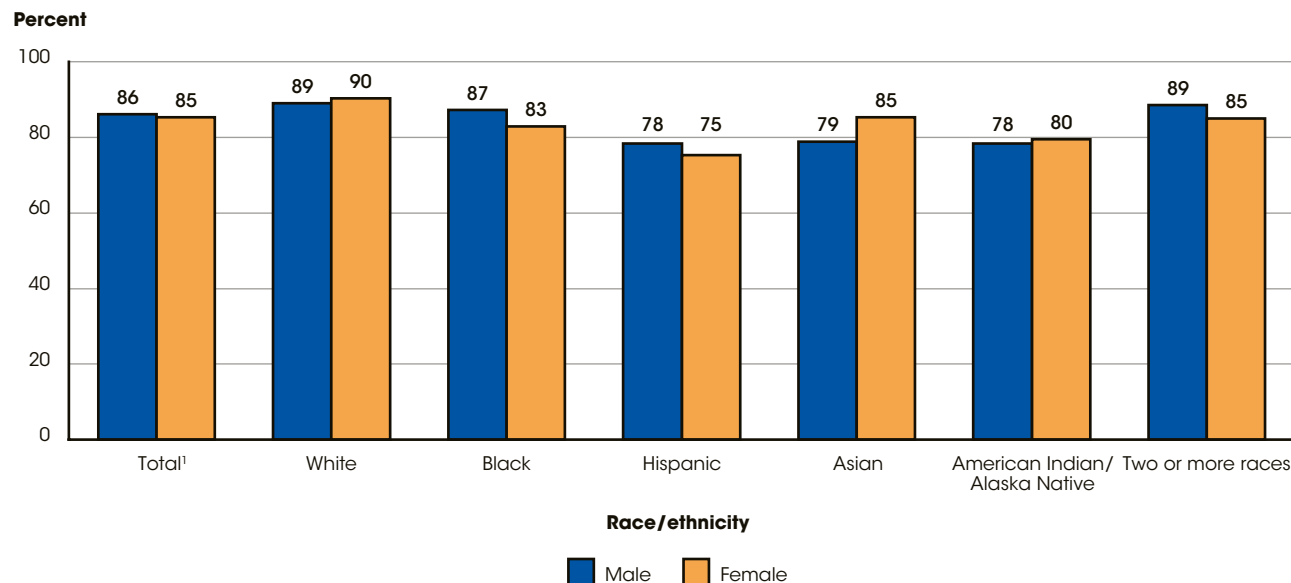


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are based on student responses. Student reports about school-sponsored activities refer to the period "since the beginning of the last school year," which for most of these students was 8th grade, or the fall of 2008. Reporting standards for Native Hawaiian/Pacific Islander and American Indian/Alaska Native males and females were not met; therefore, data for these racial groups are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

**Figure 16-2. Percentage of 9th-grade students participating in at least one non-school-sponsored activity, by race/ethnicity and sex: 2009**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are based on parent responses. Parent reports about non-school-sponsored activities refer to the last 12 months. Reporting standards for Native Hawaiian/Pacific Islander males and females were not met; therefore, data for these groups are not shown in the figure. Data weighted by W1PARENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

percentages of Whites and persons of two or more races (89 percent each) participated in these activities than did their Hispanic (78 percent) and Asian (79 percent) peers; the percentage who participated was also higher for Blacks (87 percent) than for Hispanics. Among females, a higher percentage of Whites (90 percent) than Blacks (83

percent), Hispanics (75 percent), and persons of two or more races (85 percent) participated in these activities; the percentages who participated were also higher for Blacks, Asians (85 percent), and persons of two or more races than for Hispanics.

## Technical Notes

School-sponsored activities are defined as activities that are provided by the school. Data on school-sponsored activities are based on student responses; data on non-school-sponsored activities are based on parent responses. Student reports about school-sponsored

activities refer to the period “since the beginning of the last school year,” which for most of these students was 8th grade, or the fall of 2008. Parent reports about non-school-sponsored activities refer to the last 12 months.

**Table 16-1. Percentage of 9th-grade students participating in math- and science-related school-sponsored activities, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Activity		Number of math- or science-related activities		
	Math-related <sup>1</sup>	Science-related <sup>1</sup>	At least one of these activities	More than one of these activities	None of these activities
<b>Total<sup>2</sup></b>	<b>9.8</b>	<b>6.4</b>	<b>13.4</b>	<b>4.1</b>	<b>86.6</b>
<b>Sex</b>					
Male	8.9	6.3	12.6	4.0	87.4
Female	10.7	6.5	14.2	4.2	85.8
<b>Race/ethnicity</b>					
White	8.3	6.4	12.2	3.7	87.8
Black	12.5	5.4	15.3	3.9	84.7
Hispanic	10.5	5.5	13.4	3.9	86.6
Asian	17.3	13.0	22.3	10.7	77.7
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	9.1!	‡	12.8!	‡	87.2
Two or more races	10.5	7.6	14.2	5.3	85.8
<b>Race/ethnicity by sex</b>					
<b>Male</b>					
White	7.6	6.1	11.5	3.6	88.5
Black	12.2	5.8	15.4	3.8	84.6
Hispanic	9.2	5.5	12.1	3.8	87.9
Asian	18.4	11.5	22.8	10.5	77.2
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	10.9!	‡	‡	‡	88.0
Two or more races	8.3	9.0	13.4	5.5	86.6
<b>Female</b>					
White	9.0	6.7	13.0	3.8	87.0
Black	12.8	5.0	15.2	4.0	84.8
Hispanic	11.9	5.5	14.6	4.0	85.4
Asian	16.1	14.6	21.8	11.0	78.2
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	86.3
Two or more races	12.7	6.3	15.0	5.1	85.0

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes clubs, competitions, and camps.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data are based on student responses. Student reports about school-sponsored activities refer to the period "since the beginning of the last school year," which for most of these students was 8th grade, or the fall of 2008. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.



**Table 16-2. Percentage of 9th-grade students participating in various non-school-sponsored activities, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Activity							Number of non-school-sponsored activities		
	Performing arts <sup>1</sup>	Organized sports	Religious youth group or instruction	Scouting or other youth organization	Academic instruction <sup>2</sup>	Math or science camp	Another camp	At least one of these activities	More than one of these activities	None of these activities
<b>Total<sup>3</sup></b>	<b>34.6</b>	<b>54.9</b>	<b>51.4</b>	<b>22.8</b>	<b>17.7</b>	<b>4.1</b>	<b>23.8</b>	<b>85.7</b>	<b>61.9</b>	<b>14.3</b>
<b>Sex</b>										
Male	27.9	59.8	49.5	21.6	17.5	4.1	23.2	86.1	60.3	13.9
Female	41.3	50.0	53.4	24.1	17.9	4.0	24.4	85.4	63.4	14.6
<b>Race/ethnicity</b>										
White	36.8	60.5	56.7	24.0	13.2	2.7	30.6	89.7	67.8	10.3
Black	33.8	49.1	52.3	26.3	32.8	7.4	14.8	84.9	61.9	15.1
Hispanic	27.5	46.9	39.1	16.6	18.6	3.6	14.5	76.9	48.1	23.1
Asian	44.4	38.5	38.8	25.8	31.1	15.0	16.2	82.1	57.3	17.9
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	20.0 !	48.8	42.3	31.6	16.8	‡	19.1 !	78.9	52.2	21.1
Two or more races	36.4	55.8	53.6	24.9	15.4	3.4	21.2	86.8	62.6	13.2
<b>Race/ethnicity by sex</b>										
<b>Male</b>										
White	29.1	63.3	54.5	23.2	14.2	2.8	29.6	89.0	65.0	11.0
Black	27.4	58.2	49.0	21.0	31.1	7.5	14.6	87.3	60.7	12.7
Hispanic	22.4	54.4	37.1	15.3	16.9	2.9 !	13.1	78.4	47.1	21.6
Asian	36.9	42.9	32.8	26.1	31.0	18.4	20.3	78.9	57.1	21.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	18.8 !	49.9	38.2	31.3	‡	‡	‡	78.4	49.1	21.6 !
Two or more races	29.9	59.2	56.9	26.2	16.0	3.4 !	20.4	88.6	65.1	11.4
<b>Female</b>										
White	44.9	57.5	59.0	24.8	12.1	2.7	31.7	90.4	70.7	9.6
Black	39.0	41.8	55.0	30.5	34.2	7.3	14.9	83.0	62.8	17.0
Hispanic	32.9	39.0	41.1	17.9	20.3	4.4	16.0	75.4	49.0	24.6
Asian	51.8	34.2	44.8	25.6	31.2	11.7	12.2	85.3	57.6	14.7
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	21.4 !	47.4	47.0	32.0	‡	‡	‡	79.5	55.7	20.5 !
Two or more races	42.4	52.5	50.4	23.7	14.8	3.4 !	22.0	85.1	60.2	14.9

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes music, dance, art, or theater.

<sup>2</sup> Includes academic instruction outside of school such as from a Saturday academy, learning center, personal tutor, or summer school program.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data are based on parent responses. Parent reports about non-school-sponsored activities refer to the last 12 months. Data weighted by W1PARENT. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.



# Chapter 4

## Academic Preparation and Achievement

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Chapter 4 presents data on the academic preparation and achievement of males and females within and across racial/ethnic groups in areas of study that have been shown to be critical to postsecondary access, persistence, and attainment.

Academic preparation for college, in terms of coursetaking and achievement in courses such as mathematics and science, has been the subject of much research over the last 20 years. Studies have shown the importance of advanced mathematics and science coursetaking in students' successful postsecondary matriculation and degree attainment (Chen 2009; NCES 2003). Adelman (2006) showed that after controlling for factors such as high school coursetaking among National Education Longitudinal Study (NELS) sample members, gender and race were *not* associated with the completion of a 4-year college degree. Additionally, some 95 percent of students who had completed rigorous course sequences earned a bachelor's degree within 8 years of high school graduation. For example, earning credits beyond algebra II in high school was associated with a higher likelihood of completion of a bachelor's degree.

Algebra is known as a "gateway" course for the sequence of mathematics and science courses that prepares students for success in later schooling (Matthews and Farmer 2008; Walston and McCarroll 2010). Mathematics courses are typically organized sequentially, with enrollment in more advanced courses dependent upon completion of prerequisite courses. The earlier a student proceeds through algebra, then courses such as geometry and algebra II, the more opportunities he or she has for reaching higher level mathematics courses (e.g., trigonometry, precalculus, and calculus) in high school. Completion of higher level mathematics courses is related to a higher likelihood of entering a 4-year college or university (Schneider, Swanson, and Riegle-Crumb 1998; Walston and McCarroll 2010). Recent research has related completion of advanced mathematics courses in high school with entering into science, technology, engineering, and mathematics majors in college (Chen 2009; Walston and McCarroll 2010). Algebra may be integral to preparing students for success in college and the labor force, including careers in competitive mathematics- and science-related disciplines. The National Mathematics Advisory Panel (2008) noted that completing algebra II coursework during high school correlates positively with college graduation and employment income. While there may be differing opinions among researchers and practitioners, the panel suggested that elementary and middle school mathematics curricula should put more students on a path to enroll in algebra by the 8th grade. Looking at international data, Schmidt (2004) reported that algebra concepts are commonly taught in the 8th grade in many other countries and suggested that U.S. students would benefit from increased opportunities for algebra instruction in the 8th grade.

In a report by Horn and Kojaku (2001), a consistent advantage in college persistence was demonstrated for students who completed rigorous high school curricula, and to a lesser extent for those completing mid-level curricula, over their peers completing core curricula or lower. The highest threshold, or most rigorous curriculum, identified in the study included 4 years of English, 3 years of a foreign language, 3 years of social studies, 4 years of mathematics (including precalculus or higher), 3 years of science (including biology, chemistry, and physics), and taking at least one Advanced Placement (AP) course or test. Even when all family background characteristics, indicators of socioeconomic status, and selectivity of first postsecondary institution attended were taken into consideration, the association between completing a rigorous high school academic curriculum and higher levels of college persistence remained. In addition, studies have shown student performance on college entrance exams such as the SAT to be a statistically significant predictor of college persistence (Camara 2005; Titus 2004).

## Indicator 17 Reading Achievement

Among 4th-graders and 8th-graders in 2011, and among 12th-graders in 2009, higher percentages of females than males scored at or above Proficient on the National Assessment of Educational Progress (NAEP) in reading. This pattern was found for White, Black, and Hispanic students in all three grades and for Asian students in the 4th and 8th grades.

In 2011, some 34 percent of both 4th- and 8th-grade students scored at or above the *Proficient* level on the National Assessment of Educational Progress (NAEP) reading assessment. In 2009, the most recent year for which 12th-grade NAEP data were available, 38 percent of 12th-grade students scored at or above *Proficient* in reading.

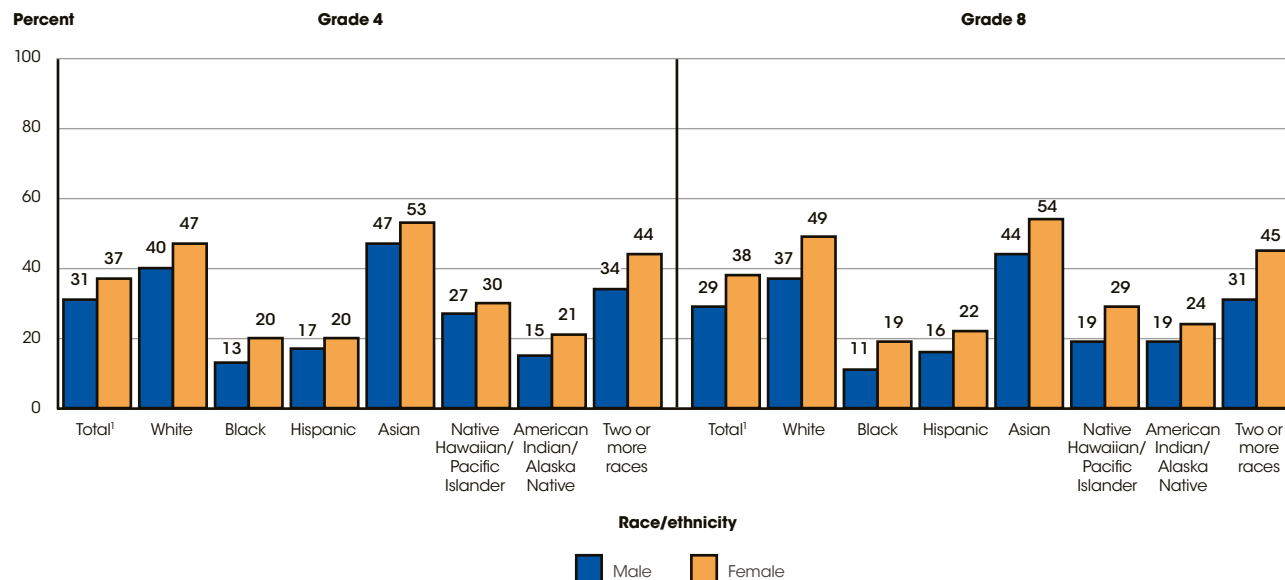
At the 4th- and 8th-grade levels in 2011, higher percentages of females than males scored at or above *Proficient* in reading. This pattern by sex was found for all racial/ethnic groups except for Native Hawaiians/Pacific Islanders in the 4th grade and except for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives in the 8th grade. For example, among 4th-graders, 20 percent of Black females scored at or above *Proficient*, compared with 13 percent of Black males; 20 percent of Hispanic females scored at this level, compared with 17 percent of Hispanic males; and 21 percent of American Indian/Alaska Native

females scored at this level, compared with 15 percent of American Indian/Alaska Native males.

At the 4th-grade level, higher percentages of Asian (50 percent) and White students (44 percent) scored at or above *Proficient* on the reading assessment than students of other racial/ethnic groups in 2011. The percentage of Native Hawaiian/Pacific Islander 4th-graders (28 percent) scoring at or above *Proficient* was higher than the percentages for Hispanic (18 percent), American Indian/Alaska Native (18 percent), and Black 4th-graders (17 percent). These same differences between racial/ethnic groups were also found among males and among females in the 4th grade, with the exception that no measurable differences were detected between the percentages of White females (47 percent) and females of two or more races (44 percent) scoring at or above *Proficient*.

Similarly, in the 8th grade, higher percentages of Asian (49 percent) and White students (43 percent) than

**Figure 17-1. Percentage of students scoring at or above the Proficient level of the National Assessment of Educational Progress (NAEP) reading assessments, by grade, race/ethnicity, and sex: 2011**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: NAEP achievement levels define what students should know and be able to do. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. NAEP reports data on student race/ethnicity based on information obtained from school rosters. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Reading Assessment, NAEP Data Explorer.

students of other racial/ethnic groups scored at or above *Proficient* in 2011. Additionally, the percentages of 8th-grade Native Hawaiians/Pacific Islanders (24 percent), American Indians/Alaska Natives (22 percent), and Hispanics (19 percent) were not measurably different from each other but were higher than the percentage for Blacks (15 percent). These same differences between racial/ethnic groups were also found among males and among females in the 8th grade, with the exception that the percentage for Native Hawaiian/Pacific Islander females (29 percent) did not measurably differ from the percentages for American Indian/Alaska Native (24 percent), Hispanic (22 percent), or Black females (19 percent).

At the 4th- and 8th-grade levels, the overall percentages of students scoring at or above *Proficient* in reading in 2011 were not measurably different from the percentages in 2009. However, among 8th-grade students, higher percentages of Hispanics overall as well as Hispanic males scored at or above *Proficient* in 2011 than in 2009. The percentage of 8th-grade Black females scoring at or above *Proficient* was also higher in 2011 than in 2009 (19 vs. 17 percent).

As in the 4th and 8th grades in 2011, a higher percentage of 12th-grade females than males scored at or above

*Proficient* in reading (43 vs. 32 percent) in 2009. This pattern was also found for White, Black, and Hispanic 12th-graders. For example, 22 percent of Black females scored at or above *Proficient*, compared with 12 percent of Black males, and 26 percent of Hispanic females scored at this level, compared with 18 percent of Hispanic males. Variations across racial/ethnic groups were also observed among 12th-graders. Higher percentages of Asian/Pacific Islander (49 percent) and White 12th-graders (46 percent) scored at or above *Proficient* in 2009 than any other racial/ethnic group shown. A higher percentage of American Indians/Alaska Natives (29 percent) and Hispanics (22 percent) scored at or above *Proficient* than Blacks (17 percent). Similar patterns were found for both males and females across racial/ethnic groups. For both males and females, higher percentages of Asians/Pacific Islanders and Whites scored at or above *Proficient* than the other racial/ethnic groups shown. In addition, among males, a higher percentage of Hispanic (18 percent) than Black males (12 percent) scored at or above *Proficient*. Among females, a higher percentage of American Indian/Alaska Native (36 percent) than Black females (22 percent) scored at or above *Proficient*.

## Technical Notes

The National Assessment of Educational Progress (NAEP) achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on

information obtained from school rosters. This indicator presents information on Asians and Pacific Islanders as a combined category for the 2009 findings because the data were collected in a manner that does not permit separate reporting prior to 2011. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Table 17-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) reading achievement levels, by grade, sex, and race/ethnicity: Various years, 2005-11**

Sex and race/ethnicity	4th grade											
	2007				2009				2011			
	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At Ad- vanced	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At Ad- vanced	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At Ad- vanced
<b>Total<sup>1</sup></b>	<b>33</b>	<b>67</b>	<b>33</b>	<b>8</b>	<b>33</b>	<b>67</b>	<b>33</b>	<b>8</b>	<b>33</b>	<b>67</b>	<b>34</b>	<b>8</b>
Sex												
Male	36	64	30	7	36	64	30	6	36	64	31	7
Female	30	70	36	9	30	70	36	9	29	71	37	9
Race/ethnicity												
White	22	78	43	11	22	78	42	10	22	78	44	11
Black	54	46	14	2	52	48	16	2	51	49	17	2
Hispanic	50	50	17	3	51	49	17	3	49	51	18	3
Asian/Pacific Islander	23	77	46	15	20	80	49	16	20	80	49	17
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	19	81	50	17
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	39	61	28	7
American Indian/Alaska Native	51	49	18	4	50	50	20	4	53	47	18	4
Two or more races	—	—	—	—	—	—	—	—	27	73	39	11
Race/ethnicity by sex												
Male												
White	25	75	39	9	25	75	39	9	24	76	40	9
Black	58	42	12	1	58	42	13	1	57	43	13	2
Hispanic	54	46	15	2	54	46	15	2	52	48	17	2
Asian/Pacific Islander	27	73	41	12	24	76	41	13	23	77	46	15
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	22	78	47	15
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	40	60	27	6
American Indian/Alaska Native	54	46	17	3	53	47	19	4	58	42	15	3
Two or more races	—	—	—	—	—	—	—	—	32	68	34	9
Female												
White	19	81	46	12	19	81	46	12	19	81	47	13
Black	49	51	17	2	46	54	18	2	45	55	20	3
Hispanic	47	53	20	4	47	53	19	3	46	54	20	3
Asian/Pacific Islander	17	82	50	17	17	83	55	19	17	83	52	19
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	16	84	53	19
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	37	63	30	8
American Indian/Alaska Native	49	51	20	5	47	53	21	4	47	53	21	5
Two or more races	—	—	—	—	—	—	—	—	22	78	44	14

See notes at end of table.

**Table 17-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) reading achievement levels, by grade, sex, and race/ethnicity: Various years, 2005–11—Continued**

Sex and race/ethnicity	8th grade											
	2007				2009				2011			
	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Total<sup>1</sup></b>	<b>26</b>	<b>74</b>	<b>31</b>	<b>3</b>	<b>25</b>	<b>75</b>	<b>32</b>	<b>3</b>	<b>24</b>	<b>76</b>	<b>34</b>	<b>3</b>
Sex												
Male	31	69	26	2	29	71	28	2	28	72	29	2
Female	21	79	36	4	21	79	37	4	20	80	38	5
Race/ethnicity												
White	16	84	40	4	16	84	41	4	15	85	43	5
Black	45	55	13	#	43	57	14	#	41	59	15	1
Hispanic	42	58	15	1	39	61	17	1	36	64	19	1
Asian/Pacific Islander	20	80	41	5	17	83	45	6	17	83	47	8
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	16	84	49	8
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	37	63	24	2
American Indian/Alaska Native	44	56	18	2	38	62	21	2	37	63	22	2
Two or more races	—	—	—	—	—	—	—	—	21	79	39	5
Race/ethnicity by sex												
Male												
White	20	80	34	2	19	81	35	3	19	81	37	3
Black	53	47	8	#	50	50	10	#	47	53	11	#
Hispanic	47	53	12	#	44	56	14	1	40	60	16	1
Asian/Pacific Islander	23	77	36	4	21	79	40	4	20	80	42	5
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	18	82	44	5
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	44	56	19	2
American Indian/Alaska Native	50	50	14	1	44	56	18	1	42	58	19	1
Two or more races	—	—	—	—	—	—	—	—	26	74	31	3
Female												
White	12	88	46	5	12	88	48	5	11	89	49	6
Black	38	62	16	1	37	63	17	1	34	66	19	1
Hispanic	37	63	19	1	35	65	21	1	32	68	22	1
Asian/Pacific Islander	16	84	46	7	13	87	51	8	14	86	52	11
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	13	87	54	11
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	29	71	29	2
American Indian/Alaska Native	37	63	23	3	33	67	23	3	32	68	24	2
Two or more races	—	—	—	—	—	—	—	—	16	84	45	6

See notes at end of table.

**Table 17-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) reading achievement levels, by grade, sex, and race/ethnicity: Various years, 2005–11—Continued**

Sex and race/ethnicity	12th grade							
	2005				2009			
	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
<b>Total<sup>1</sup></b>	<b>27</b>	<b>73</b>	<b>35</b>	<b>5</b>	<b>26</b>	<b>74</b>	<b>38</b>	<b>5</b>
Sex								
Male	33	67	29	3	31	69	32	4
Female	22	78	41	6	20	80	43	7
Race/ethnicity								
White	21	79	43	6	19	81	46	7
Black	46	54	16	1	43	57	17	1
Hispanic	40	60	20	2	39	61	22	2
Asian/Pacific Islander	26	74	36	5	19	81	49	10
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	33	67	26	2	30	70	29	2
Two or more races	—	—	—	—	—	—	—	—
Race/ethnicity by sex								
Male								
White	28	72	35	4	24	76	40	5
Black	53	47	12	1	51	49	12	1
Hispanic	46	54	15	1	45	55	18	1
Asian/Pacific Islander	30	70	30	4	22	78	45	8
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	‡	‡	‡	‡	42	58	20	‡
Two or more races	—	—	—	—	—	—	—	—
Female								
White	15	85	50	8	13	87	53	9
Black	40	60	19	1	36	64	22	1
Hispanic	35	65	23	2	33	67	26	2
Asian/Pacific Islander	22	78	42	7	15	85	53	13
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	‡	‡	‡	‡	19	81	36	3
Two or more races	—	—	—	—	—	—	—	—

— Not available.

# Rounds to zero.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.<sup>2</sup> Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available.NOTE: NAEP achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on information obtained from school rosters. The NAEP assessment was not administered to grade 12 in 2007 or 2011. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005, 2007, 2009, and 2011 Reading Assessment, NAEP Data Explorer.



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## Indicator 18 Mathematics Achievement

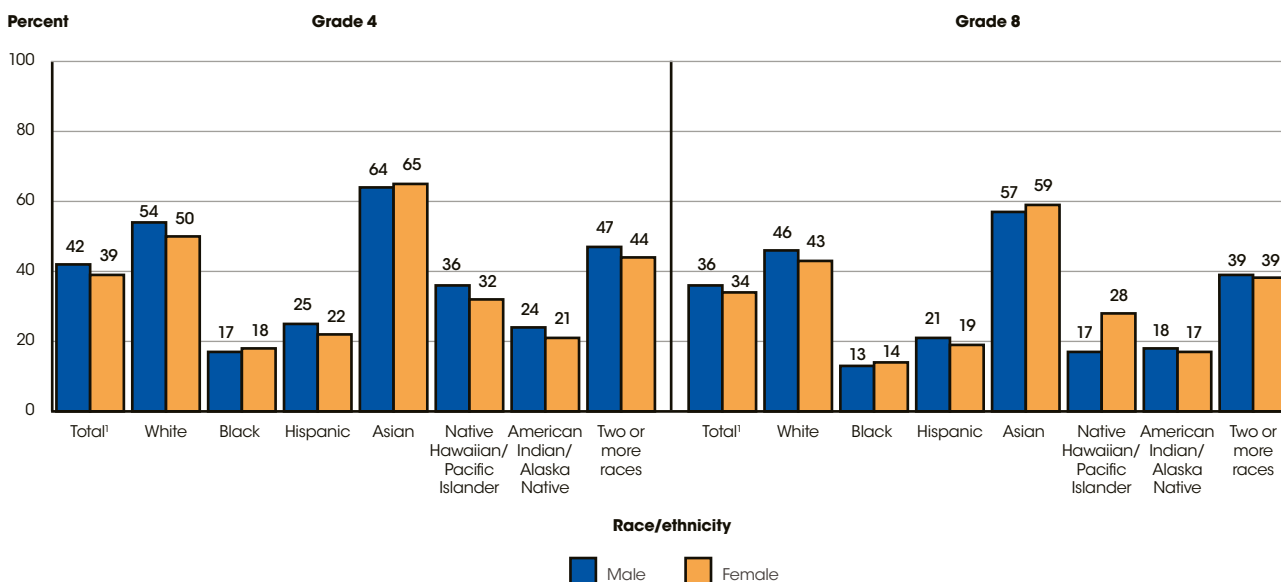
Among 4th-graders and 8th-graders in 2011, and among 12th-graders in 2009, higher percentages of males than females scored at or above Proficient on the National Assessment of Educational Progress (NAEP) in mathematics. This pattern was found for White students in all three grades and for Hispanic students in the 4th and 12th grades.

In 2011, some 40 percent of 4th-graders and 35 percent of 8th-graders scored at or above the *Proficient* level on the National Assessment of Educational Progress (NAEP) mathematics assessment. In 2009, the most recent year for which 12th-grade NAEP data were available, 26 percent of 12th-graders scored at or above the *Proficient* level in mathematics.

In both the 4th and 8th grades, higher percentages of males than females scored at or above *Proficient* on the mathematics portion of NAEP in 2011. This pattern was also found for White and Hispanic students in the 4th grade and for White students in the 8th grade. For example, 25 percent of 4th-grade Hispanic males scored at or above *Proficient*, compared with 22 percent of Hispanic females. In contrast, a lower percentage of 8th-grade Native Hawaiian/Pacific Islander males (17 percent) than females (28 percent) scored at or above *Proficient* in mathematics. Among the remaining racial/ethnic groups, the percentages of males and females scoring at or above *Proficient* did not measurably differ at either grade level.

The percentage of students who scored at or above *Proficient* varied across racial/ethnic groups. In both the 4th and 8th grades in 2011, higher percentages of Asian students and White students scored at or above *Proficient* on the mathematics portion than students of other racial/ethnic groups, and Black students had the lowest percentages scoring at or above *Proficient*. The percentages of Native Hawaiians/Pacific Islanders scoring at or above *Proficient* were higher than those of Hispanics and American Indians/Alaska Natives in the 4th grade and higher than those of American Indians/Alaska Natives in the 8th grade. For example, 64 percent of Asian 4th-graders scored at or above *Proficient*, compared with 52 percent of Whites, 34 percent of Native Hawaiians/Pacific Islanders, 24 percent of Hispanics, 22 percent of American Indians/Alaska Natives, and 17 percent of Blacks. Similarly, among 8th-graders, 58 percent of Asian students scored at or above *Proficient*, compared with 44 percent of Whites, 22 percent of Native Hawaiians/Pacific Islanders, 20 percent of Hispanics, 17 percent of American Indians/Alaska Natives, and 13 percent of

Figure 18-1. Percentage of students scoring at or above the *Proficient* level of the National Assessment of Educational Progress (NAEP) mathematics assessments, by grade, race/ethnicity, and sex: 2011



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: NAEP achievement levels define what students should know and be able to do. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. NAEP reports data on student race/ethnicity based on information obtained from school rosters. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Mathematics Assessment, NAEP Data Explorer.

Blacks. Similar patterns were generally observed for both males and females across racial/ethnic groups in 2011. However, in the 4th grade, the percentages of Black females (18 percent) and American Indian/Alaska Native females (21 percent) scoring at or above *Proficient* were not measurably different. In the 8th grade, the percentages of White females (43 percent) and females of two or more races (39 percent) were not measurably different, nor were the percentages for Black and American Indian/Alaska Native females (14 vs. 17 percent); Native Hawaiian/Pacific Islander and American Indian/Alaska Native males (17 vs. 18 percent); and Native Hawaiian/Pacific Islander and Black males (17 vs. 13 percent).

Overall, higher percentages of students scored at or above *Proficient* in 2011 than in 2009 in both the 4th grade (40 vs. 39 percent) and 8th grade (35 vs. 34 percent). This pattern was also found for female students at both grade levels. Similarly, among 4th-grade students, percentages were higher in 2011 than in 2009 for Whites and Hispanics overall, White females, and Hispanic males and

females. Among 8th-grade students, percentages were higher in 2011 than in 2009 for Hispanics overall (20 vs. 17 percent).

As in the 4th and 8th grades in 2011, a higher percentage of 12th-grade males than females scored at or above *Proficient* in mathematics (28 vs. 24 percent) in 2009. This pattern was also found for White and Hispanic 12th-graders. For example, 13 percent of Hispanic males scored at or above *Proficient*, compared with 9 percent of Hispanic females. In 2009, higher percentages of Asian/Pacific Islander students (52 percent) and White students (33 percent) scored at or above *Proficient* than students from any other racial/ethnic groups. A higher percentage of Hispanics (11 percent) than Blacks (6 percent) scored at or above *Proficient*, but the percentage for American Indians/Alaska Natives (12 percent) did not differ measurably from those for either Hispanics or Blacks. The same patterns were observed for both males and females across racial/ethnic groups.

## Technical Notes

The National Assessment of Educational Progress (NAEP) achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on

information obtained from school rosters. This indicator presents information on Asians and Pacific Islanders as a combined category for the 2009 findings because the data were collected in a manner that does not permit separate reporting prior to 2011. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Table 18-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) mathematics achievement levels, by grade, sex, and race/ethnicity: Various years, 2005-11**

Sex and race/ethnicity	4th grade											
	2007				2009				2011			
	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Total<sup>1</sup></b>	<b>18</b>	<b>82</b>	<b>39</b>	<b>6</b>	<b>18</b>	<b>82</b>	<b>39</b>	<b>6</b>	<b>18</b>	<b>82</b>	<b>40</b>	<b>7</b>
Sex												
Male	18	82	41	7	18	82	41	7	17	83	42	8
Female	18	82	37	4	18	82	37	5	18	82	39	6
Race/ethnicity												
White	9	91	51	8	9	91	51	8	9	91	52	9
Black	36	64	15	1	36	64	16	1	34	66	17	1
Hispanic	30	70	22	1	29	71	22	1	28	72	24	2
Asian/Pacific Islander	9	91	58	15	8	92	60	17	9	91	62	19
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	7	93	64	20
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	23	77	34	7
American Indian/Alaska Native	30	70	25	2	34	66	21	2	34	66	22	2
Two or more races	—	—	—	—	—	—	—	—	13	87	45	10
Race/ethnicity by sex												
Male												
White	8	92	54	9	9	91	53	10	9	91	54	10
Black	38	62	15	1	38	62	16	1	35	65	17	1
Hispanic	30	70	24	2	29	71	23	2	26	74	25	2
Asian/Pacific Islander	9	91	61	18	8	92	61	17	10	90	62	19
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	8	92	64	20
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	21	79	36	5
American Indian/Alaska Native	30	70	25	3	33	67	22	2	34	66	24	3
Two or more races	—	—	—	—	—	—	—	—	13	87	47	12
Female												
White	9	91	48	6	10	90	48	7	9	91	50	7
Black	35	65	16	1	35	65	16	1	33	67	18	1
Hispanic	31	69	20	1	30	70	20	1	29	71	22	2
Asian/Pacific Islander	9	91	56	13	9	91	60	17	8	92	62	19
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	7	93	65	20
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	25	75	32	8
American Indian/Alaska Native	30	70	24	2	35	65	21	1	33	67	21	1
Two or more races	—	—	—	—	—	—	—	—	13	87	44	9

See notes at end of table.

**Table 18-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) mathematics achievement levels, by grade, sex, and race/ethnicity: Various years, 2005–11—Continued**

Sex and race/ethnicity	8th grade											
	2007				2009				2011			
	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced	Below Basic	At or above Basic	At or above Proficient	At Advanced
<b>Total<sup>1</sup></b>	<b>29</b>	<b>71</b>	<b>32</b>	<b>7</b>	<b>27</b>	<b>73</b>	<b>34</b>	<b>8</b>	<b>27</b>	<b>73</b>	<b>35</b>	<b>8</b>
Sex												
Male	28	72	34	8	27	73	36	9	27	73	36	9
Female	29	71	30	6	28	72	32	7	27	73	34	7
Race/ethnicity												
White	18	82	42	9	17	83	44	11	16	84	44	11
Black	53	47	11	1	50	50	12	1	49	51	13	2
Hispanic	45	55	15	2	43	57	17	2	39	61	20	3
Asian/Pacific Islander	17	83	50	17	15	85	54	20	14	86	55	22
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	12	88	58	24
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	41	59	22	4
American Indian/Alaska Native	47	53	16	2	44	56	18	3	45	55	17	3
Two or more races	—	—	—	—	—	—	—	—	22	78	39	11
Race/ethnicity by sex												
Male												
White	17	83	44	11	17	83	46	12	16	84	46	12
Black	53	47	11	1	52	48	12	1	51	49	13	2
Hispanic	45	55	17	2	41	59	19	2	39	61	21	3
Asian/Pacific Islander	18	82	51	19	16	84	55	21	16	84	53	24
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	14	86	57	25
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	48	52	17	3
American Indian/Alaska Native	46	54	18	2	42	58	20	4	46	54	18	4
Two or more races	—	—	—	—	—	—	—	—	22	78	39	11
Female												
White	18	82	39	8	17	83	42	10	17	83	43	10
Black	52	48	11	1	49	51	13	1	47	53	14	1
Hispanic	46	54	14	2	45	55	15	2	40	60	19	2
Asian/Pacific Islander	17	83	49	16	14	86	52	19	12	88	57	21
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	11	89	59	22
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	32	68	28	6
American Indian/Alaska Native	48	52	15	3	46	54	17	2	45	55	17	3
Two or more races	—	—	—	—	—	—	—	—	23	77	39	11

See notes at end of table.

**Table 18-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) mathematics achievement levels, by grade, sex, and race/ethnicity: Various years, 2005–11—Continued**

Sex and race/ethnicity	12th grade							
	2005				2009			
	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At Ad- vanced	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At Ad- vanced
<b>Total<sup>1</sup></b>	<b>39</b>	<b>61</b>	<b>23</b>	<b>2</b>	<b>36</b>	<b>64</b>	<b>26</b>	<b>3</b>
Sex								
Male	38	62	25	3	35	65	28	4
Female	40	60	21	1	37	63	24	2
Race/ethnicity								
White	30	70	29	3	25	75	33	3
Black	70	30	6	#	63	37	6	#
Hispanic	60	40	8	#	55	45	11	#
Asian/Pacific Islander	27	73	36	6	16	84	52	10
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	58	42	6	1	44	56	12	#
Two or more races	—	—	—	—	—	—	—	—
Race/ethnicity by sex								
Male								
White	29	71	31	4	25	75	35	4
Black	70	30	7	#	64	36	6	#
Hispanic	59	41	8	1	51	49	13	1
Asian/Pacific Islander	29	71	37	10	17	83	52	12
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	‡	‡	‡	‡	40	60	14	#
Two or more races	—	—	—	—	—	—	—	—
Female								
White	30	70	27	2	26	74	30	2
Black	70	30	5	#	63	37	6	#
Hispanic	62	38	8	#	58	42	9	#
Asian/Pacific Islander	25	75	35	3	16	84	51	8
Asian	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
Native Hawaiian/Pacific Islander	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>	— <sup>2</sup>
American Indian/Alaska Native	‡	‡	‡	‡	46	54	10	#
Two or more races	—	—	—	—	—	—	—	—

— Not available.

# Rounds to zero.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.<sup>2</sup> Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available.NOTE: NAEP achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on information obtained from school rosters. The NAEP assessment was not administered to grade 12 in 2007 or 2011. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005, 2007, 2009, and 2011 Mathematics Assessment, NAEP Data Explorer.

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## Indicator 19

# Science Achievement

*In the 4th, 8th, and 12th grades, a higher percentage of males than females scored at or above Proficient on the National Assessment of Educational Progress (NAEP) in science in 2009. This pattern held among White students in the 4th grade; White, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students in the 8th grade; and White and Hispanic students in the 12th grade.*

In 2009, some 34 percent of 4th-graders, 30 percent of 8th-graders, and 21 percent of 12th-graders scored at or above the *Proficient* level on the National Assessment of Educational Progress (NAEP) science assessment. At all three grade levels, a higher percentage of males than females scored at or above *Proficient* in science. For example, 24 percent of 12th-grade males scored at or above *Proficient*, compared with 18 percent of 12th-grade females. This pattern by sex held among White students in the 4th grade and among White, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students in the 8th grade. It also held among White and Hispanic students in the 12th grade: 32 percent of White males scored at or above *Proficient*, compared with 22 percent of White females; and 11 percent of Hispanic males scored at or above *Proficient*, compared with 6 percent of Hispanic females.

In all three grades, higher percentages of White and Asian/Pacific Islander students scored at or above *Proficient* than did American Indian/Alaska Native, Hispanic, and Black students. For example, among 12th-grade students, 36 percent of Asians/Pacific Islanders and 27 percent of Whites scored at or above *Proficient*, compared with 13 percent of American Indians/Alaska Natives, 8 percent of Hispanics, and 4 percent of Blacks. The percentage of Asian/Pacific Islander 12th-graders scoring at or above *Proficient* was higher than the percentage for their White peers. At the 4th- and 8th-grade levels, the percentages of American Indian/Alaska Native students scoring at or above *Proficient* were higher than the corresponding percentages of Hispanics and Blacks. In addition, the percentages of Hispanics

scoring at or above *Proficient* were higher than the percentages of Blacks across all three grade levels.

Higher percentages of both White and Asian/Pacific Islander males and females scored at or above *Proficient* in science than males and females of any other racial/ethnic groups shown, at all grade levels. However, at all three grade levels, the percentages of White males at or above *Proficient* did not measurably differ from the percentages of Asian/Pacific Islander males. The percentages of White females and Asian/Pacific Islander females did not measurably differ in the 4th and 8th grades. For example, among 12th-grade males, 32 percent each of Asian/Pacific Islander males and White males scored at or above *Proficient*, compared with 11 percent of Hispanic males and 5 percent of Black males. Among females in the 12th grade, a higher percentage of Asians/Pacific Islanders than Whites scored at or above *Proficient* (39 vs. 22 percent).

The percentages of American Indian/Alaska Native males scoring at or above *Proficient* were higher than the percentages of Black males at the 4th-grade level and the percentages of Hispanic and Black males at the 8th-grade level. Higher percentages of female American Indian/Alaska Native students scored at or above *Proficient* than Hispanic and Black females at the 4th-grade level and Black females at the 8th-grade level. Higher percentages of Hispanic males than Black males scored at or above *Proficient* in all grades, and higher percentages of Hispanic females than Black females scored at or above *Proficient* in the 4th grade.

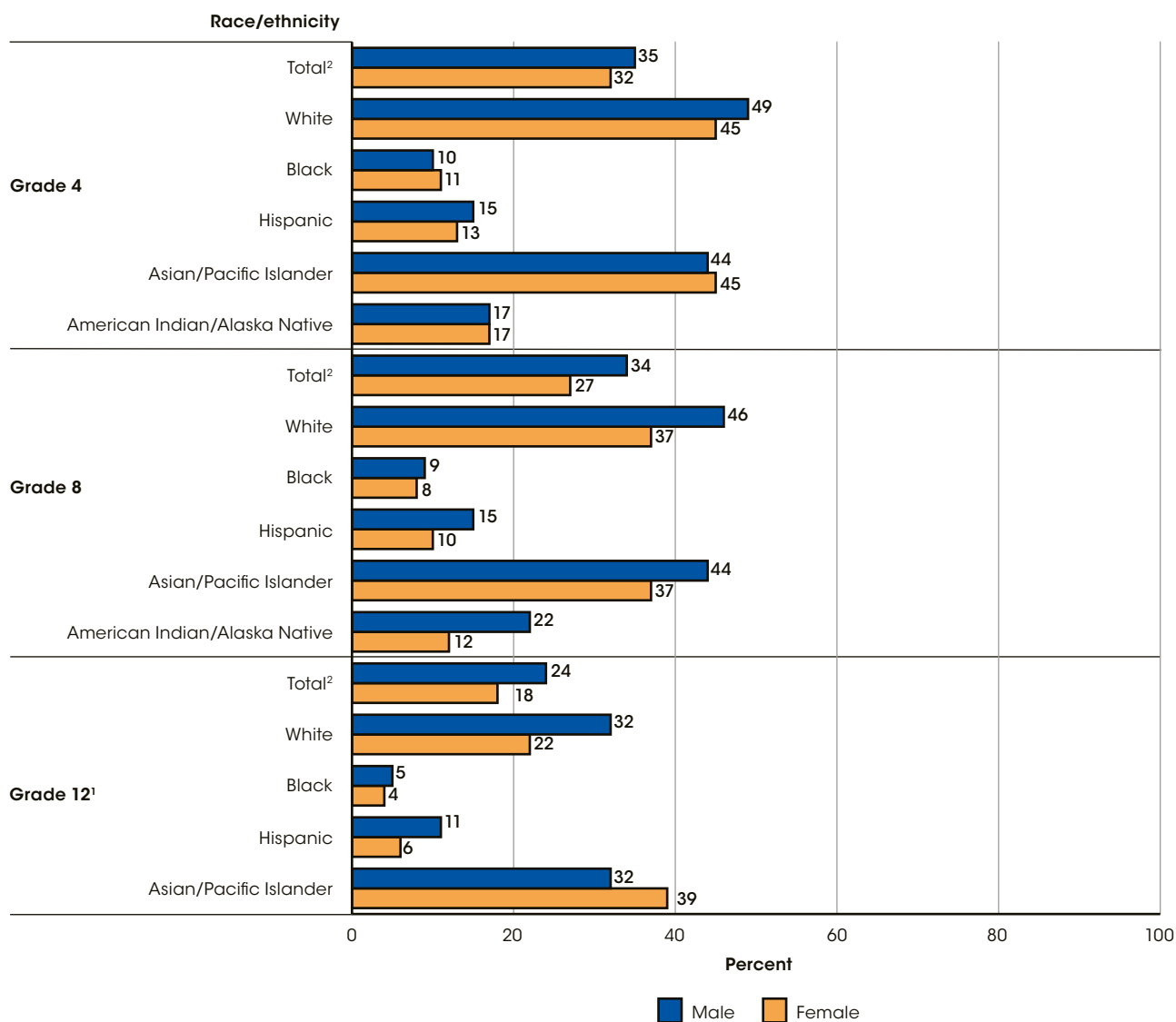
### Technical Notes

The National Assessment of Educational Progress (NAEP) achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on

information obtained from school rosters. This indicator presents information on Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.



**Figure 19-1. Percentage of students scoring at or above the *Proficient* level of the National Assessment of Educational Progress (NAEP) science assessment, by grade, race/ethnicity, and sex: 2009**



<sup>1</sup> Reporting standards for American Indian/Alaska Native 12th-graders were not met; therefore, data for this group are not shown in the figure.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: NAEP achievement levels define what students should know and be able to do. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. NAEP reports data on student race/ethnicity based on information obtained from school rosters. Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment, NAEP Data Explorer.

**Table 19-1. Percentage distribution of students at National Assessment of Educational Progress (NAEP) science achievement levels, by race/ethnicity, sex, grade, and achievement level: 2009**

Grade and achievement level	Race/ethnicity																				
	Total <sup>1</sup>			White			Black			Hispanic			Asian/Pacific Islander <sup>2</sup>			American Indian/ Alaska Native			Two or more races		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>4th grade</b>																					
Below <i>Basic</i>	28	27	28	13	13	14	53	54	53	47	46	48	19	20	19	43	43	44	—	—	—
At or above <i>Basic</i>	72	73	72	87	87	86	47	46	47	53	54	52	81	80	81	57	57	56	—	—	—
At or above <i>Proficient</i>	34	35	32	47	49	45	11	10	11	14	15	13	45	44	45	17	17	17	—	—	—
At <i>Advanced</i>	1	1	1	1	1	1	#	#	#	#	#	#	2	2	2	#	#	#	—	—	—
<b>8th grade</b>																					
Below <i>Basic</i>	37	35	38	22	21	24	67	67	67	57	54	61	27	26	28	52	47	57	—	—	—
At or above <i>Basic</i>	63	65	62	78	79	76	33	33	33	43	46	39	73	74	72	48	53	43	—	—	—
At or above <i>Proficient</i>	30	34	27	42	46	37	8	9	8	12	15	10	41	44	37	17	22	12	—	—	—
At <i>Advanced</i>	2	2	1	2	3	1	#	#	#	#	#	#	3	4	2	#	#	#	—	—	—
<b>12th grade</b>																					
Below <i>Basic</i>	40	37	42	28	26	31	71	69	73	58	53	63	27	29	26	47	‡	‡	—	—	—
At or above <i>Basic</i>	60	63	58	72	74	69	29	31	27	42	47	37	73	71	74	53	‡	‡	—	—	—
At or above <i>Proficient</i>	21	24	18	27	32	22	4	5	4	8	11	6	36	32	39	13	‡	‡	—	—	—
At <i>Advanced</i>	1	2	1	2	3	1	#	#	#	#	1	#	4	5	4	#	‡	‡	—	—	—

— Not available.

# Rounds to zero.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available.

NOTE: NAEP achievement levels define what students should know and be able to do. *Basic* denotes partial mastery of knowledge and skills that are fundamental for proficient work at a given grade. *Proficient* represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter. *Advanced* signifies superior performance. NAEP reports data on student race/ethnicity based on information obtained from school rosters. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment, NAEP Data Explorer.

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## Indicator 20

# Eighth-Grade Algebra

*Of students that scored in the top half of a 5th-grade mathematics assessment, a lower percentage of males than females went on to enroll in algebra or an advanced course other than algebra in 8th grade (51 vs. 66 percent).*

Overall, 33 percent of 8th-grade students were enrolled in algebra and 6 percent were enrolled in an advanced course other than algebra in grade 8 in the spring of 2007. Of the students who scored in the top half of the ECLS-K 5th-grade mathematics assessment in the spring of 2004, some 58 percent went on to enroll in algebra or an advanced course other than algebra in 2007.

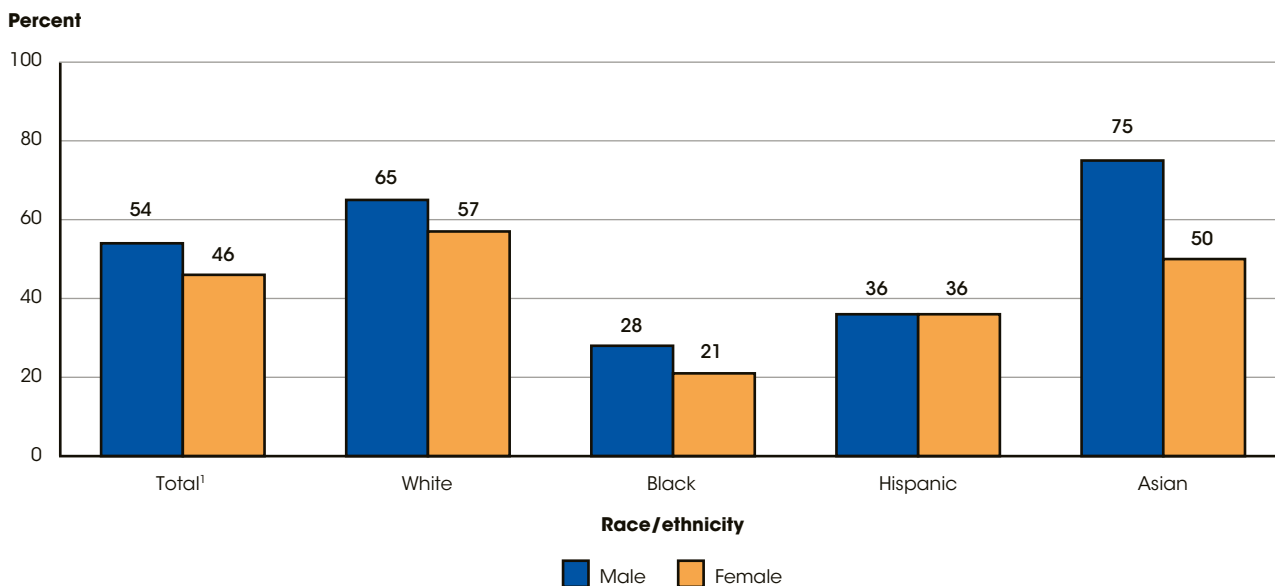
In the spring of 5th grade, a higher percentage of males than females scored in the top half of the mathematics assessment (54 vs. 46 percent). This pattern was also found for White students (65 vs. 57 percent) and Asian students (75 vs. 50 percent). In contrast, a lower percentage of males than females who scored in the top half of the 5th-grade mathematics assessment went on to enroll in algebra or an advanced course other than algebra in grade 8 (51 vs. 66 percent). This pattern also was found for White students (54 vs. 68 percent) but was not significant for other racial/ethnic groups.

The percentages of students scoring in the top half of the 5th-grade mathematics assessment differed across

racial/ethnic groups. Lower percentages of Black (24 percent) and Hispanic students (36 percent) than Asian (60 percent) and White students (61 percent) scored in the top half of the assessment in grade 5. In addition, a higher percentage of Hispanic than Black students scored in the top half of the mathematics assessment (36 vs. 24 percent).

Enrollment rates at grade 8 in algebra or an advanced course other than algebra by students who scored in the top half of the 5th-grade mathematics assessment also differed across racial/ethnic groups. For example, among students who scored in the top half of the 5th-grade assessment, the percentage of Black students enrolled in algebra or an advanced course other than algebra by 8th grade (26 percent) was lower than the percentages of Asian (86 percent), White (60 percent), and Hispanic (58 percent) students enrolled. In addition, the percentage of Asian students (86 percent) who scored in the top half in grade 5 and went on to enroll in algebra or an advanced course other than algebra in grade 8 was higher than the percentages for all other racial/ethnic groups. These

**Figure 20-1. Percentage of spring 2000 first-graders who scored in the top half of the fifth-grade mathematics assessment, by race/ethnicity and sex: Spring 2004**

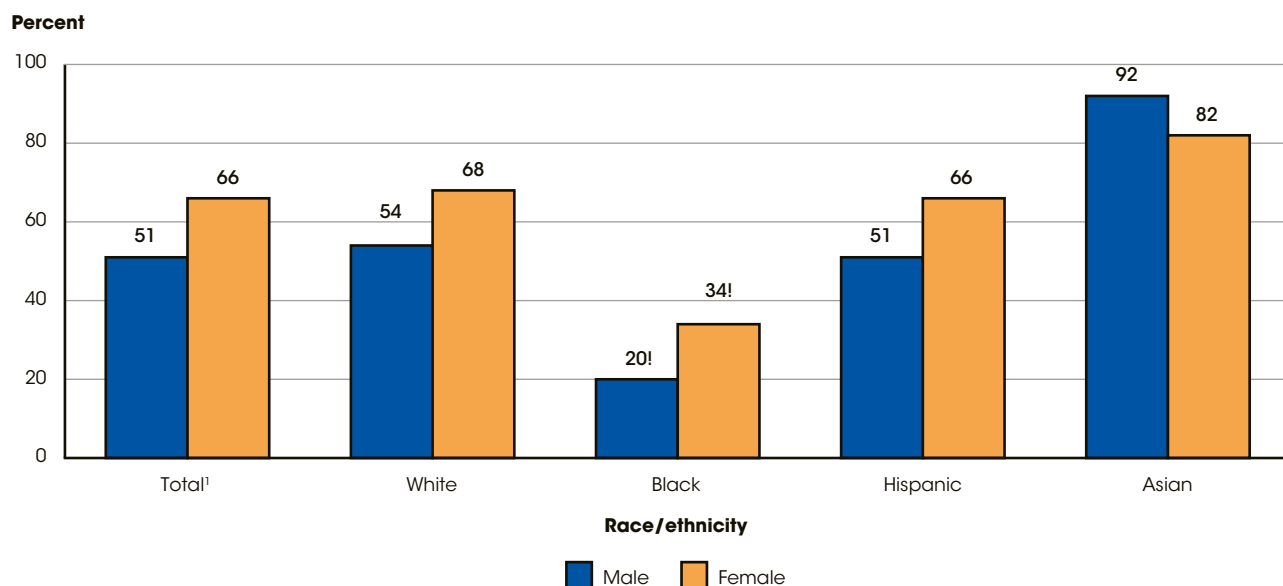


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates represent all U.S. students who attended 1st grade in the spring of 2000 and then were in a U.S. 8th grade in the 2006–07 school year. Estimates were weighted by C7CPTM0. Reporting standards for Native Hawaiian/Pacific Islander students, American Indian/Alaska Native students, and students of two or more races were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-Eighth Grade Full Sample Public-Use Data File.

**Figure 20-2. Percentage of spring 2000 first-graders who scored in the top half of the fifth-grade mathematics assessment and went on to enroll in algebra or an advanced course other than algebra in the eighth grade, by race/ethnicity and sex: Spring 2007**



<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates represent all U.S. students who attended 1st grade in the spring of 2000 and then were in a U.S. 8th grade in the 2006–07 school year. “Algebra or an advanced course other than algebra” includes algebra I, integrated or sequential mathematics, algebra II, and geometry. Estimates were weighted by C7CPTM0. Reporting standards for Native Hawaiian/Pacific Islander students, American Indian/Alaska Native students, and students of two or more races were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K), Kindergarten-Eighth Grade Full Sample Public-Use Data File.

overall race/ethnicity patterns were similarly observed for males by race/ethnicity. However, no measurable differences were observed among females when studied by racial/ethnic group, except in the case of Black females. The percentage of Black females who scored in the top

half in grade 5 and went on to enroll in algebra or an advanced course other than algebra in grade 8 was lower than the percentages for females of all other racial/ethnic groups.

## Technical Notes

Data on mathematics achievement in grades 5 and 8 were based on student assessments, and data on students’ mathematics coursetaking in grade 8 were based on responses from students’ mathematics teachers. Estimates represent all U.S. students who attended 1st grade in the spring of 2000 and were then enrolled in a U.S.

8th grade in the 2006–07 school year. The cohort represents approximately 80 percent of all 8th-grade students in the 2006–07 school year. *Algebra or an advanced course other than algebra* includes algebra I, integrated or sequential mathematics, algebra II, and geometry.

**Table 20-1. Percentage of spring 2000 first-graders who scored in the top half of the fifth-grade ECLS-K mathematics assessment and of those who scored in the top half, the percentage enrolled in algebra or an advanced course other than algebra in the eighth grade, by sex and race/ethnicity: Spring 2004 and spring 2007**

Race/ethnicity	Percentage scoring in the top half of the 5th-grade mathematics assessment			Enrolled in algebra or an advanced course other than algebra in 8th grade		
	Total	Male	Female	Total	Male	Female
<b>Total</b>	<b>50.0</b>	<b>53.8</b>	<b>46.2</b>	<b>57.7</b>	<b>51.1</b>	<b>65.6</b>
White	60.8	64.8	56.6	60.3	53.7	68.3
Black	24.3	28.3	20.9	25.8	19.8 !	34.3 !
Hispanic	36.3	36.3	36.2	58.4	51.3	65.6
Asian	59.7	75.2	49.8	86.4	91.5	81.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	59.3	‡	‡	55.4	‡	‡

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

NOTE: Estimates represent all U.S. students who attended 1st grade in the spring of 2000 and then were in a U.S. 8th grade in the 2006-07 school year.

"Algebra or an advanced course other than algebra" includes algebra I, integrated or sequential mathematics, algebra II, and geometry. Estimates were weighted by C7CPTM0. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), Kindergarten-Eighth Grade Full Sample Public-Use Data File.

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## Indicator 21

# Ninth-Grade Mathematics

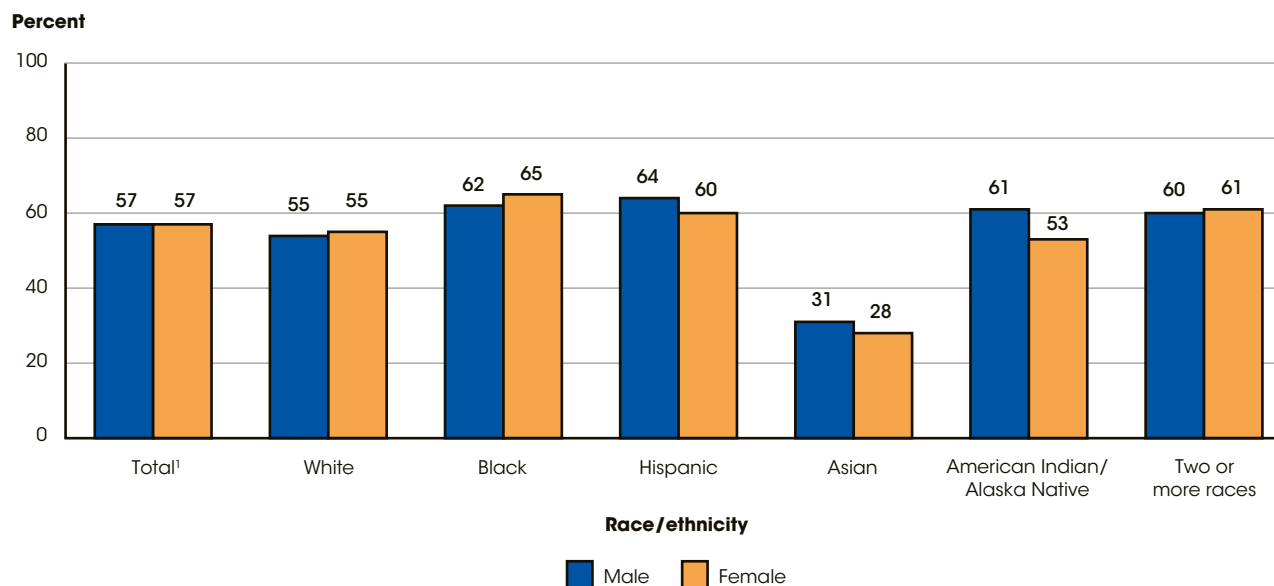
*In 2009, the percentages of 9th-graders who reported that they were enrolled in algebra and geometry were not measurably different between males and females overall or between males and females within each racial/ethnic group.*

In 2009, a nationally representative sample of 9th-grade students were asked to identify the mathematics courses in which they were currently enrolled. About 10 percent of these 9th-graders reported that they were not enrolled in a mathematics course. Among those who reported they were enrolled in at least one mathematics course, 7 percent were taking prealgebra or review/remedial mathematics, 57 percent were taking algebra I, some 25 percent were taking geometry, and 11 percent were taking an advanced math course other than algebra I or geometry (e.g., algebra II, trigonometry, integrated mathematics, statistics or probability, analytic geometry, precalculus, or calculus). In general, the percentages of 9th-graders enrolled in algebra and geometry were not measurably different between males and females overall or within each racial/ethnic group. In addition, the percentages of 9th-graders who were not enrolled in any mathematics course were not measurably different by sex.

Mathematics course enrollment in the 9th grade differed across racial/ethnic groups. The percentages of 9th-graders who reported they were currently enrolled in algebra I were higher for Blacks (64 percent) and Hispanics (62 percent) than for Whites (55 percent) and Asians (29 percent). This racial/ethnic pattern was observed for male 9th-graders, and it was observed for female 9th-graders as well, with the exception that no measurable difference was seen between the percentages of White and Hispanic females enrolled in algebra I.

The percentages of 9th-graders who reported they were enrolled in geometry were higher for Asians (46 percent), Whites (26 percent), Hispanics (23 percent), and students of two or more races (23 percent) than for Blacks (15 percent) and American Indians/Alaska Natives (10 percent). A similar racial/ethnic pattern was observed for female 9th-graders. However, among male 9th-graders, higher percentages of Asians (45 percent) and Whites

**Figure 21-1.** Among 9th-grade students who reported they were currently enrolled in a mathematics course, percentage enrolled in algebra I, by race/ethnicity and sex: 2009

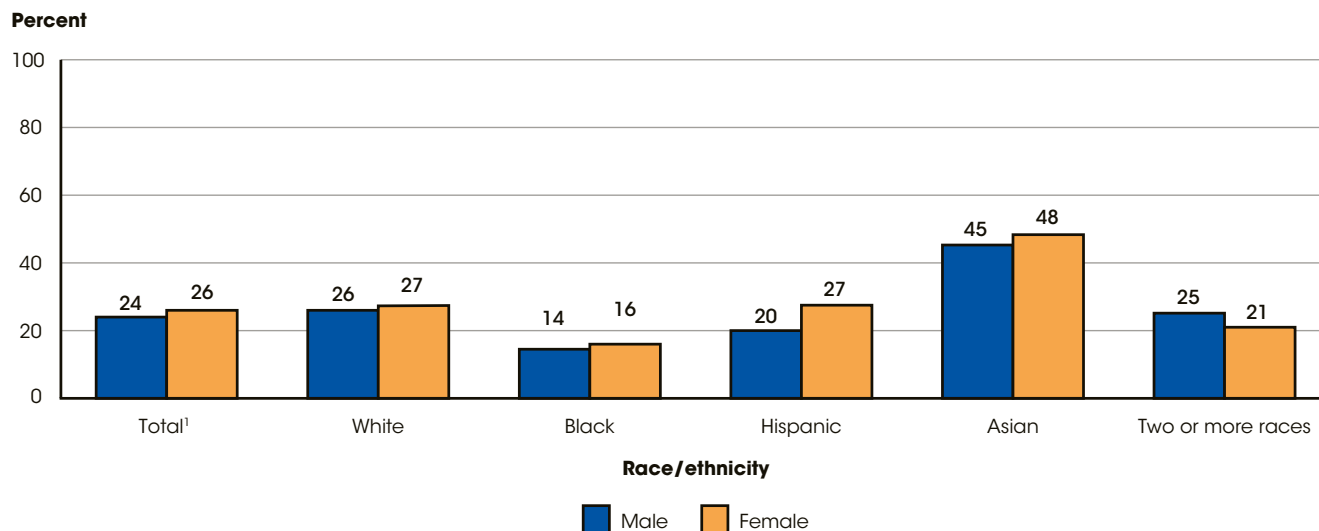


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Information on 9th-grade mathematics coursefaking was based on student report. Reporting standards for Native Hawaiian/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.



**Figure 21-2. Among 9th-grade students who reported they were currently enrolled in a mathematics course, percentage enrolled in geometry, by race/ethnicity and sex: 2009**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Information on 9th-grade mathematics coursetaking was based on student report. Reporting standards for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native males were not met; therefore, data for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native males and females are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.

(26 percent) than Hispanics (20 percent) and Blacks (14 percent) were enrolled in geometry.

The percentages of American Indian/Alaska Native (17 percent), Black (14 percent), and Hispanic (13 percent) 9th-graders who reported they were not enrolled in a mathematics course were higher than the percentages for White (8 percent) and Asian 9th-graders (7 percent). Similar patterns in the percentages of 9th-graders not

enrolled in a mathematics course were also observed by sex across the Black, Hispanic, White, and Asian racial/ethnic groups. The percentages of Black and Hispanic 9th-graders who reported they were not taking a mathematics course were also higher than the percentage of students of two or more races who were not taking a mathematics course (8 percent). This racial/ethnic pattern in the percentages of 9th-graders not taking mathematics was also observed for female students.

## Technical Notes

Information on 9th-grade mathematics coursetaking was based on student report. Students could report enrollment in more than one mathematics course. Students could

also report enrollment in an “other math course,” but this response category is not presented in the text.

**Table 21-1. Percentage of 9th-grade students who reported they were enrolled in various mathematics courses, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Among students currently enrolled in a mathematics course				
	Not enrolled in a mathematics course	Enrolled in prealgebra or review/remedial math <sup>1</sup>	Enrolled in algebra I <sup>2</sup>	Enrolled in geometry	Enrolled in an advanced course other than algebra I and geometry <sup>3</sup>
<b>Total</b>	<b>10.3</b>	<b>6.7</b>	<b>57.2</b>	<b>24.5</b>	<b>10.7</b>
Sex					
Male	11.0	6.8	57.3	23.5	11.3
Female	9.5	6.6	57.2	25.5	10.2
Race/ethnicity					
White	8.4	5.8	55.1	26.3	11.3
Black	14.0	9.5	63.5	15.0	11.4
Hispanic	13.2	7.2	61.9	23.1	7.2
Asian	7.3	4.4 !	29.4	46.2	20.3
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	17.0	18.9 !	57.3	9.9 !	11.5 !
Two or more races	8.4	7.2	60.3	22.6	11.7
Race/ethnicity by sex					
Male					
White	9.2	5.9	54.8	25.6	11.6
Black	15.4	10.3	62.3	14.4	12.8
Hispanic	13.8	7.5	63.5	19.7	8.1
Asian	8.3	4.6 !	30.5	44.9	20.3
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	12.7 !	18.4 !	60.7	‡	10.8 !
Two or more races	10.3	6.0	60.2	24.8	12.1
Female					
White	7.6	5.7	55.4	27.1	10.9
Black	12.8	8.8	64.5	15.5	10.3
Hispanic	12.7	7.0	60.3	26.6	6.3
Asian	6.3	4.3 !	28.2	47.5	20.4
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	22.4 !	19.5 !	52.5	11.0 !	‡
Two or more races	6.6	8.4	60.5	20.5	11.3

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes basic, business, consumer, functional, or general mathematics.

<sup>2</sup> Includes algebra IA and IB.

<sup>3</sup> Includes courses such as algebra II, trigonometry, integrated mathematics, statistics or probability, analytic geometry, precalculus, and calculus.

NOTE: Information on 9th-grade mathematics coursetaking was based on student report. Students could report enrollment in more than one mathematics course. Students could also report enrollment in an "other math course," but this response category is not presented in the table. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Restricted-Use Data File.

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## Indicator 22

# Mathematics and Science Coursetaking in High School

Of high school students who graduated in 2009, a higher percentage of females (37 percent) than males (34 percent) had completed precalculus. The percentage of 2009 high school graduates who had completed biology, chemistry, and physics was lower for females (28 percent) than for males (32 percent). The percentage of Asian/Pacific Islander 2009 graduates who had completed precalculus or had completed biology, chemistry, and physics was higher than the percentages of 2009 graduates of any other racial/ethnic group shown who had completed these courses.

Some 35 percent of high school students who graduated in 2009 had completed precalculus.<sup>3</sup> A higher percentage of female (37 percent) than male (34 percent) students who graduated that year had completed precalculus. The same pattern was also observed for Black females and males who graduated in 2009 (25 vs. 20 percent). No measurable differences by sex were observed for 2009 graduates from other racial/ethnic groups.

The precalculus coursetaking pattern among high school students who graduated in 2009 varied across racial/ethnic groups. A higher percentage of Asians/Pacific Islanders (60 percent) than of students of any other racial/ethnic group shown who graduated that year had completed precalculus. In addition, a higher percentage of White (38 percent) high school graduates of 2009 had completed precalculus than Hispanic (26 percent), Black (23 percent), and American Indian/Alaska Native (19 percent) high school graduates of that

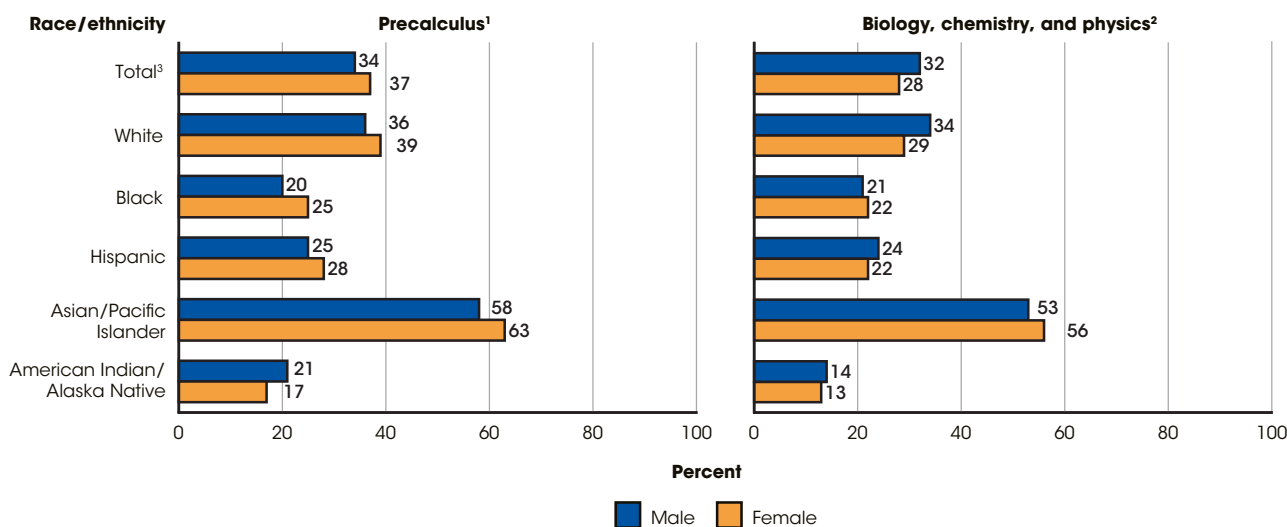
<sup>3</sup> Refers to having completed at least 0.5 Carnegie credits of precalculus.

year. The percentage of Hispanic high school graduates who had completed precalculus was higher than those for Black and American Indian/Alaska Native graduates. Similar patterns across racial/ethnic groups were also observed for males and females who graduated from high school in 2009. For example, 63 percent of Asian/Pacific Islander females and 39 percent of White females had completed precalculus, compared with 28 percent of Hispanic females, 25 percent of Black females, and 17 percent of American Indian/Alaska Native females. Higher percentages of Hispanic females and Black females than of American Indian/Alaska Native females had completed precalculus. No measurable differences were found between Hispanic female and Black female 2009 graduates.

Among 2009 high school graduates, 30 percent had completed biology, chemistry, and physics.<sup>4</sup> A higher

<sup>4</sup> Refers to having completed at least one Carnegie credit each of biology, chemistry, and physics.

**Figure 22-1. Percentage of high school graduates who completed precalculus and biology, chemistry, and physics in high school, by race/ethnicity and sex: 2009**



<sup>1</sup> At least 0.5 Carnegie credits of precalculus.

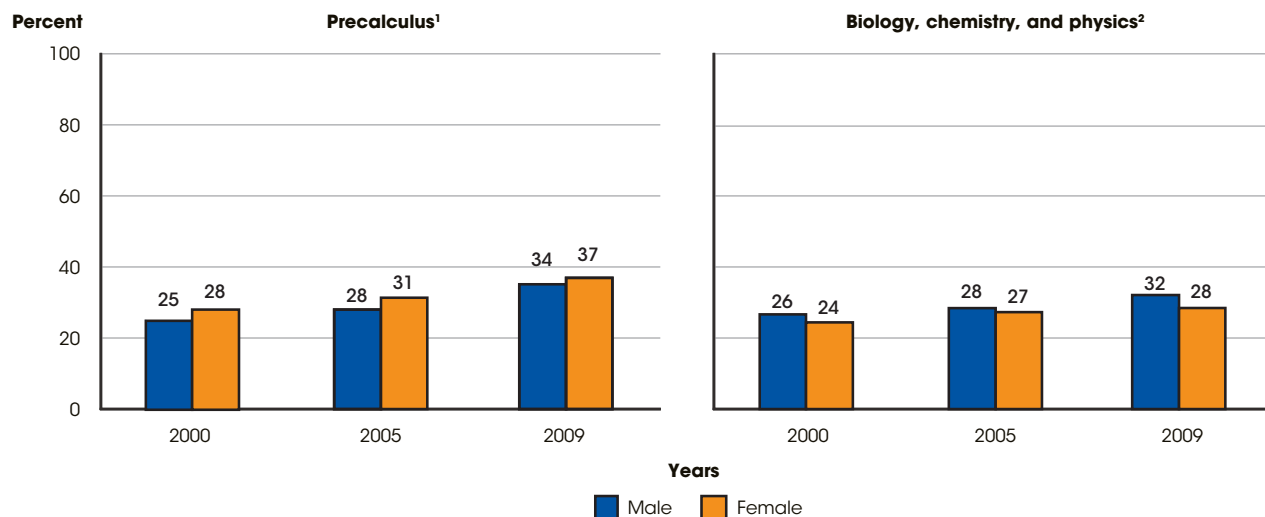
<sup>2</sup> At least one Carnegie credit each of biology, chemistry, and physics.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: These data only report the percentage of graduates who earned the indicated Carnegie credit (0.5 = one semester; 1.0 = one academic year) for each high school course. For a transcript to be included in the analyses, it had to meet three requirements: (1) the graduate received either a standard or honors diploma, (2) the graduate's transcript contained 16 or more Carnegie credits, and (3) the graduate's transcript contained more than 0 Carnegie credits in English courses. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Study (HSTS), 2009.

**Figure 22-2. Percentage of high school graduates who completed precalculus and biology, chemistry, and physics in high school, by sex: 2000, 2005, and 2009**



<sup>1</sup> At least 0.5 Carnegie credits of precalculus.

<sup>2</sup> At least one Carnegie credit each of biology, chemistry, and physics.

NOTE: These data only report the percentage of graduates who earned the indicated Carnegie credit (0.5 = one semester; 1.0 = one academic year) for each high school course. For a transcript to be included in the analyses, it had to meet three requirements: (1) the graduate received either a standard or honors diploma, (2) the graduate's transcript contained 16 or more Carnegie credits, and (3) the graduate's transcript contained more than 0 Carnegie credits in English courses. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Study (HSTS), 2000, 2005, and 2009.

percentage of males (32 percent) than females (28 percent) who graduated that year had completed these three courses. A similar pattern was observed for 2009 graduates who were White males and females (34 vs. 29 percent), but no measurable differences by sex were observed for 2009 high school graduates from other racial/ethnic groups.

A higher percentage of 2009 high school graduates who were Asians/Pacific Islanders (54 percent) than of 2009 graduates from any other racial/ethnic group shown had completed biology, chemistry, and physics. A higher percentage of White students who graduated in 2009 (31 percent) had completed these three courses than Hispanics (23 percent), Blacks (22 percent), and American Indians/Alaska Natives (14 percent) who graduated in 2009. The percentages of Hispanic and Black 2009 graduates who had completed the three science courses were also higher than the percentage of American Indian/Alaska Native 2009 graduates. A similar pattern was also observed for male and female high school graduates separately, except that no measurable differences were detected between the percentages of Black males and American Indian/Alaska Native males. For example, 53 percent of Asian/Pacific Islander males and 34 percent of White males had completed these courses, compared with 24 percent of Hispanic, 21 percent of Black, and 14 percent of American Indian/Alaska Native males.

A higher percentage of students who graduated from high school in 2009 completed precalculus than students who

graduated in 2000 (35 vs. 27 percent). This difference in coursetaking between the graduating classes of 2000 and 2009 was also observed by sex and by race/ethnicity, except that no measurable difference was detected between graduates of 2000 and 2009 who were American Indians/Alaska Natives. Specifically, some 34 percent of male and 37 percent of female 2009 graduates had completed precalculus, compared with 25 percent of male and 28 percent of female 2000 graduates. Students who graduated in 2009 completed precalculus at higher percentages than those who graduated in 2000 by these races/ethnicities: Blacks (23 vs. 16 percent), Hispanics (26 vs. 19 percent), Whites (38 vs. 28 percent), and Asians/Pacific Islanders (60 vs. 49 percent).

The percentage of 2009 high school graduates who had completed the three science courses (i.e., biology, chemistry, and physics) was higher than the percentage of 2000 high school graduates who had done so: some 30 percent of 2009 high school graduates had completed these courses, compared with 25 percent of 2000 high school graduates. In addition, 32 percent of male and 28 percent of female students who graduated from high school in 2009 had completed all of these science courses, compared with 26 percent and 24 percent, respectively, of 2000 high school graduates. By race/ethnicity, the percentages of White and Hispanic 2009 graduates who had completed biology, chemistry, and physics were higher than the corresponding percentages of White and Hispanic 2000 graduates.

## Technical Notes

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This indicator reports the percentage of graduates who earned the indicated Carnegie credit (0.5 = one semester; 1.0 = one academic year) for high school math and science courses according to transcript data. For a transcript to be included in the analyses, it had to meet three requirements: (1) the graduate received either a standard or honors diploma, (2) the graduate's transcript contained 16 or more Carnegie credits, and (3) the graduate's transcript contained more than 0 Carnegie credits in

English courses. This indicator presents information on Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Table 22-1. Percentage of high school graduates who completed selected mathematics and science courses in high school, by sex and race/ethnicity: 2000, 2005, and 2009**

Year, sex, and race/ethnicity	Geometry <sup>1</sup>	Algebra II/ trigonometry <sup>2</sup>	Pre- calculus <sup>2</sup>	Calculus <sup>1</sup>	Biology <sup>1</sup>	Chemistry <sup>1</sup>	Physics <sup>1</sup>	Biology and chemistry <sup>3</sup>	Biology, chemistry, and physics <sup>4</sup>
<b>2000</b>									
<b>Total<sup>5</sup></b>	<b>78.3</b>	<b>68.3</b>	<b>26.6</b>	<b>11.6</b>	<b>91.1</b>	<b>61.8</b>	<b>31.3</b>	<b>59.2</b>	<b>25.0</b>
Sex									
Male	74.8	65.2	25.3	12.1	88.9	57.7	34.1	54.3	26.3
Female	81.4	71.1	27.8	11.1	93.2	65.5	28.9	63.6	23.9
Race/ethnicity									
White	79.2	69.6	28.1	12.5	91.7	62.9	32.3	60.1	25.6
Black	77.8	64.7	16.1	4.6	92.4	59.5	25.1	57.8	20.0
Hispanic	72.6	60.0	19.3	5.6	87.8	52.0	23.1	50.3	17.7
Asian/Pacific Islander	81.3	81.3	48.7	30.4	87.8	75.1	53.8	70.6	47.0
American Indian/Alaska Native	65.0	60.3	12.6	2.4!	88.4	43.6	17.5	39.4	11.9
Two or more races	—	—	—	—	—	—	—	—	—
Race/ethnicity by sex									
Male									
White	75.3	66.2	26.7	13.4	89.1	59.1	35.6	55.5	27.5
Black	74.6	61.0	14.7	3.8	90.2	53.2	26.2	51.1	19.2
Hispanic	70.0	57.9	18.0	5.6	87.4	47.0	23.6	45.2	17.6
Asian/Pacific Islander	79.3	77.1	45.3	28.3	85.5	71.2	54.0	65.4	45.9
American Indian/Alaska Native	67.6	63.7	9.5	‡	86.2	44.9	22.7	39.2	14.2!
Two or more races	—	—	—	—	—	—	—	—	—
Female									
White	82.8	72.6	29.5	11.7	94.0	66.4	29.3	64.5	24.0
Black	80.3	67.5	17.4	5.3	94.1	64.5	24.4	63.1	20.7
Hispanic	75.0	61.8	20.5	5.6	88.2	56.6	22.8	54.8	17.8
Asian/Pacific Islander	83.2	85.2	51.9	32.4	89.8	78.6	53.6	75.4	48.0
American Indian/Alaska Native	62.1	56.5	16.1	‡	91.0	42.1	11.6!	39.7	9.2!
Two or more races	—	—	—	—	—	—	—	—	—

See notes at end of table.

**Table 22-1. Percentage of high school graduates who completed selected mathematics and science courses in high school, by sex and race/ethnicity: 2000, 2005, and 2009—Continued**

Year, sex, and race/ethnicity	Geometry <sup>1</sup>	Algebra II/ trigonometry <sup>2</sup>	Pre- calculus <sup>2</sup>	Calculus <sup>1</sup>	Biology <sup>1</sup>	Chemistry <sup>1</sup>	Physics <sup>1</sup>	Biology and chemistry <sup>3</sup>	Biology, chemistry, and physics <sup>4</sup>
<b>2005</b>									
<b>Total<sup>5</sup></b>	<b>83.8</b>	<b>71.3</b>	<b>29.4</b>	<b>13.6</b>	<b>92.5</b>	<b>66.4</b>	<b>32.9</b>	<b>64.3</b>	<b>27.4</b>
Sex									
Male	81.9	68.0	28.0	14.0	91.0	62.7	34.9	60.3	28.2
Female	85.6	74.4	30.8	13.2	93.9	70.0	31.0	68.0	26.5
Race/ethnicity									
White	83.9	72.4	32.0	15.3	92.8	67.4	34.8	65.3	29.0
Black	85.0	69.3	17.9	5.5	93.7	63.6	25.8	62.0	21.3
Hispanic	81.0	63.1	20.4	6.4	89.2	59.3	23.4	57.2	18.8
Asian/Pacific Islander	87.1	79.5	48.8	30.0	92.4	79.7	50.3	75.5	42.9
American Indian/Alaska Native	73.8	67.2	15.8	7.9 !	91.5	48.9	18.1	47.6	14.0
Two or more races	—	—	—	—	—	—	—	—	—
Race/ethnicity by sex									
Male									
White	82.3	69.2	30.8	15.6	91.4	63.7	37.5	61.3	30.5
Black	81.0	64.0	15.3	5.4	91.8	57.4	24.5	55.4	18.6
Hispanic	78.8	60.5	16.8	5.9	87.7	55.7	22.7	53.7	18.2
Asian/Pacific Islander	85.9	75.8	46.8	30.0	90.7	77.6	52.9	72.1	43.5
American Indian/Alaska Native	74.3	64.3	11.4 !	11.4 !	90.9	48.7	19.0	47.4	11.9 !
Two or more races	—	—	—	—	—	—	—	—	—
Female									
White	85.5	75.7	33.2	15.0	94.3	71.1	32.1	69.1	27.6
Black	88.1	73.3	19.8	5.6	95.1	68.3	26.7	67.1	23.3
Hispanic	82.9	65.4	23.7	6.8	90.5	62.5	24.0	60.3	19.4
Asian/Pacific Islander	88.3	82.9	50.6	30.0	94.0	81.6	47.8	78.7	42.3
American Indian/Alaska Native	73.4	69.5	19.3	5.1 !	92.0	49.1	17.3	47.7	15.7
Two or more races	—	—	—	—	—	—	—	—	—

See notes at end of table.



**Table 22-1. Percentage of high school graduates who completed selected mathematics and science courses in high school, by sex and race/ethnicity: 2000, 2005, and 2009—Continued**

Year, sex, and race/ethnicity	Geometry <sup>1</sup>	Algebra II/ trigonometry <sup>2</sup>	Pre- calculus <sup>2</sup>	Calculus <sup>1</sup>	Biology <sup>1</sup>	Chemistry <sup>1</sup>	Physics <sup>1</sup>	Biology and chemistry <sup>3</sup>	Biology, chemistry, and physics <sup>4</sup>
<b>2009</b>									
<b>Total<sup>5</sup></b>	<b>88.3</b>	<b>75.8</b>	<b>35.3</b>	<b>15.9</b>	<b>95.6</b>	<b>70.4</b>	<b>36.1</b>	<b>68.3</b>	<b>30.1</b>
Sex									
Male	86.6	73.8	33.8	16.1	94.9	67.4	39.2	65.0	31.9
Female	89.9	77.8	36.6	15.7	96.2	73.4	33.0	71.4	28.3
Race/ethnicity									
White	88.8	77.4	37.9	17.5	95.6	71.5	37.6	68.9	31.4
Black	88.4	70.6	22.7	6.1	96.3	65.3	26.9	64.3	21.9
Hispanic	87.0	71.4	26.5	8.6	94.8	65.7	28.6	64.2	22.7
Asian/Pacific Islander	86.1	83.0	60.5	42.2	95.8	84.8	61.1	82.7	54.4
American Indian/Alaska Native	81.6	66.6	18.5	6.3	94.5	44.5	19.8	43.9	13.6
Two or more races	—	—	—	—	—	—	—	—	—
Race/ethnicity by sex									
Male									
White	86.8	75.6	36.4	17.5	95.0	68.5	41.8	65.6	34.0
Black	86.7	67.6	20.2	6.2	95.4	59.7	27.5	58.5	21.2
Hispanic	86.3	68.7	25.2	9.1	94.4	64.1	29.9	62.8	23.7
Asian/Pacific Islander	85.5	81.0	58.0	41.9	94.4	81.8	61.3	78.8	52.6
American Indian/Alaska Native	74.5	58.9	20.5	4.6 †	93.2	42.5	18.3	42.0	14.3
Two or more races	—	—	—	—	—	—	—	—	—
Female									
White	90.8	79.2	39.5	17.6	96.2	74.7	33.4	72.2	28.7
Black	89.9	73.2	24.9	6.1	97.1	70.2	26.4	69.4	22.4
Hispanic	87.7	73.8	27.7	8.1	95.1	67.0	27.5	65.4	21.9
Asian/Pacific Islander	86.6	85.0	62.9	42.5	97.1	87.7	60.8	86.7	56.2
American Indian/Alaska Native	87.6	73.1	16.9	7.7 †	95.6	46.2	21.2	45.5	13.0
Two or more races	—	—	—	—	—	—	—	—	—

— Not available.

† Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Percentages are for students who earned at least one Carnegie credit.

<sup>2</sup> Percentages are for students who earned at least 0.5 of a Carnegie credit.

<sup>3</sup> Percentages are for students who earned at least one Carnegie credit each in biology and chemistry.

<sup>4</sup> Percentages are for students who earned at least one Carnegie credit each in biology, chemistry, and physics.

<sup>5</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: These data only report the percentage of students who earned the indicated Carnegie credit (0.5 = one semester; 1.0 = one academic year) for each high school course. For a transcript to be included in the analyses, it had to meet three requirements: (1) the graduate received either a standard or honors diploma, (2) the graduate's transcript contained 16 or more Carnegie credits, and (3) the graduate's transcript contained more than 0 Carnegie credits in English courses. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Transcript Study (HSTS), 2000, 2005, and 2009.

## Indicator 23

# Advanced Placement Exams

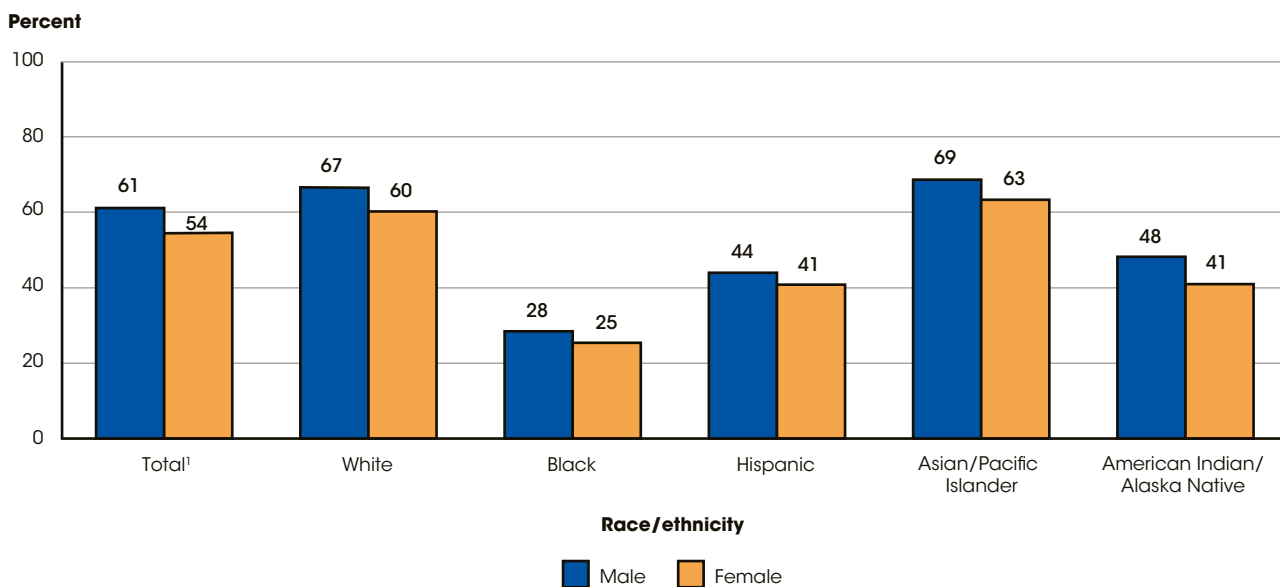
In May 2010, a higher percentage of males than females (61 vs. 54 percent) who took an Advanced Placement (AP) exam received a score of 3 or higher in at least one subject area. This trend held across all racial/ethnic groups, with the largest difference occurring between American Indian/Alaska Native males and females (7 percentage point difference) and the smallest differences occurring both between Hispanic males and females and between Black males and females (3 percentage point difference each).

In May 2010, about 58 percent of students who took an AP exam received a score of 3 or higher in at least one subject area. A higher percentage of males than females received a score of 3 or higher on any AP exam (61 vs. 54 percent). This trend held across all racial/ethnic groups, with the largest difference occurring between American Indian/Alaska Native males and females (7 percentage point difference) and the smallest difference occurring both between Hispanic males and females and between Black males and females (3 percentage point difference each). In addition, there was a 6 percentage point difference between White males and females and a

5 percentage point difference between Asian/Pacific Islander males and females.

The percentage of students achieving a score of 3 or higher on any AP exam varied across racial/ethnic groups. Some 66 percent of Asian/Pacific Islander test-takers received a score of 3 or higher, compared with 63 percent of White test-takers, 42 percent of American Indian/Alaska Natives, 42 percent of Hispanics, and 27 percent of Black test-takers. The same racial/ethnic patterns were observed for male and female students who took AP exams. Among males, 69 percent of Asian/Pacific Islanders received a

**Figure 23-1. Percentage of test-taking students receiving a score of 3 or higher on any Advanced Placement (AP) exams, by race/ethnicity and sex: May 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Biology, Calculus AB, Chemistry, English literature and composition, and U.S. history are some of the most frequently taken AP exams (The College Board 2005). The scores for all AP examinations range from 1 to 5, with 5 being the highest score. Data reported are for all students who completed an AP exam. The College Board collects racial/ethnic information based on the following categories: American Indian/Alaska Native, Asian/Asian American, Black or African American/Afro-American, Latino (Chicano/Mexican, Puerto Rican, Other Latino), White, and Other. *Black or African American* refers to test-takers who identified themselves as Black or African American/Afro-American, and *Hispanic or Latino* refers to the sum of all Latino subgroups. Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available. Race categories exclude persons of Hispanic ethnicity. SOURCE: The College Board, Advanced Placement Program, *National Summary Report*, 2010.

score of 3 or higher, compared with 67 percent of White students, 48 percent of American Indian/Alaska Native students, 44 percent of Hispanic students, and 29 percent of Black students. Among females, 63 percent of Asian/

Pacific Islanders achieved a score of 3 or higher, compared with 60 percent of White students, 41 percent of American Indian/Alaska Natives, 41 percent of Hispanics, and 25 percent of Black students.

## Technical Notes

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The scores for all AP examinations range from 1 to 5, with 5 being the highest score. AP examinations are available in over 30 different subject areas. Biology, Calculus AB, Chemistry, English literature and composition, and U.S. history are some of the most frequently taken AP exams. Data reported are for all students who completed an AP exam in any subject area in May 2010. AP exams are offered only in the month of May. This indicator presents

information on Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

**Table 23-1. Percentage of test-taking students receiving a score of 3 or higher on the Advanced Placement (AP) exams, by subject, sex, and race/ethnicity: May 2010**

Sex and race/ethnicity	All AP exams <sup>1</sup>	Biology	Calculus AB	Chemistry	English literature and composition	U.S. History
<b>Total<sup>2</sup></b>	<b>57.5</b>	<b>48.7</b>	<b>55.1</b>	<b>54.1</b>	<b>57.2</b>	<b>52.5</b>
Sex						
Male	61.2	55.5	59.8	60.2	57.4	56.7
Female	54.5	43.8	50.1	47.2	57.1	48.9
Race/ethnicity						
White	63.2	53.0	59.6	56.1	66.1	59.2
Black	26.6	19.3	24.4	22.7	24.4	24.7
Hispanic	42.2	25.0	34.4	29.0	33.6	30.3
Asian/Pacific Islander	66.0	60.2	61.6	66.3	63.0	62.4
American Indian/Alaska Native	44.2	31.1	42.2	34.7	43.7	36.7
Race/ethnicity by sex						
Male						
White	66.6	60.0	64.0	62.3	66.0	63.1
Black	28.5	23.2	27.9	28.5	23.4	26.2
Hispanic	44.0	31.6	40.6	35.3	33.8	34.3
Asian/Pacific Islander	68.7	65.4	64.9	70.6	61.8	64.8
American Indian/Alaska Native	48.3	35.7	49.5	43.4	43.1	42.4
Female						
White	60.3	48.0	54.7	48.7	66.2	55.7
Black	25.4	17.1	21.9	18.6	24.8	23.8
Hispanic	40.9	20.3	28.2	22.4	33.4	27.2
Asian/Pacific Islander	63.4	55.9	58.4	61.6	63.8	60.3
American Indian/Alaska Native	41.0	27.6	34.3	23.3	44.0	32.0

<sup>1</sup> Estimates reflect the percentage of students who received a score of 3 or higher on any AP exam, including subject areas not presented in this table.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Biology, Calculus AB, Chemistry, English literature and composition, and U.S. history are some of the most frequently taken AP exams (The College Board 2005). The scores for all AP examinations range from 1 to 5, with 5 being the highest score. Data reported are for all students who completed an AP exam. The College Board collects racial/ethnic information based on the following categories: American Indian/Alaskan, Asian/Asian American, Black or African American/Afro-American, Latino (Chicano/Mexican, Puerto Rican, Other Latino), White, and Other. *Black or African American* refers to test-takers who identified themselves as Black or African American/Afro-American, and *Hispanic or Latino* refers to the sum of all Latino subgroups. Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available. Race categories exclude persons of Hispanic ethnicity.

SOURCE: The College Board, Advanced Placement Program, *National Summary Report*, 2010.

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## Indicator 24

# College Entrance Exams

*A higher percentage of males than females met the ACT benchmark scores in mathematics (49 vs. 41 percent) and science (34 vs. 26 percent) in 2011. In contrast, a lower percentage of males than females met the benchmark scores in English (64 vs. 69 percent) and reading (51 vs. 53 percent).*

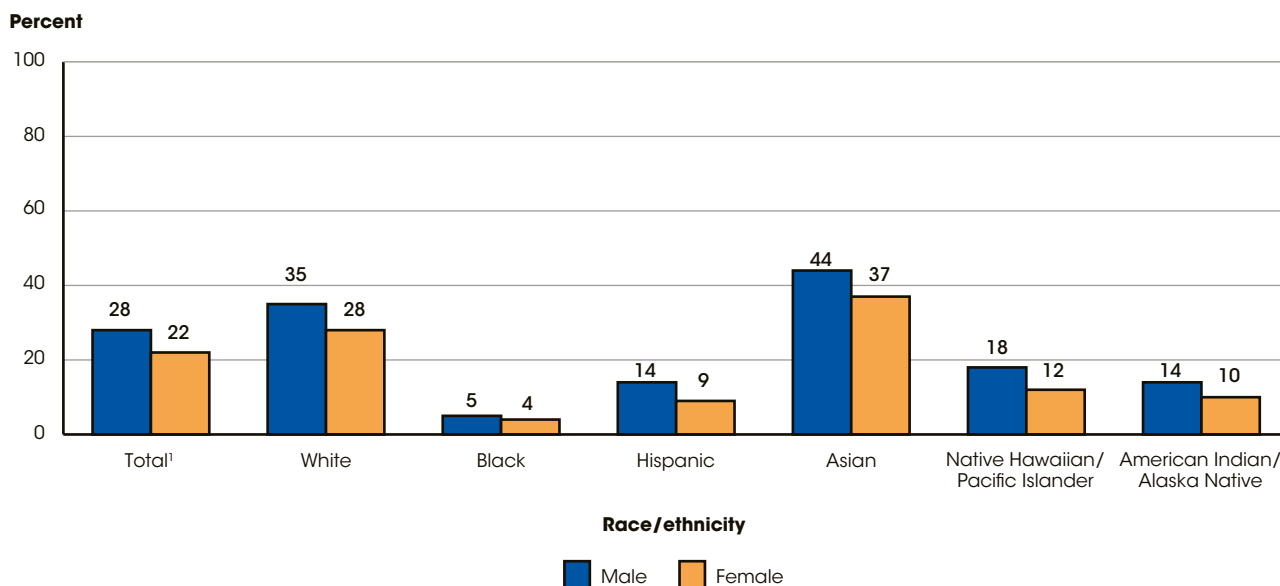
College entrance exams are typically required for acceptance at 4-year postsecondary institutions. This indicator focuses on student performance on the two most prominent college entrance exams (the ACT and the SAT) using ACT college readiness benchmark scores and SAT scores. In 2011, some 25 percent of all students who took the ACT met or exceeded the ACT college readiness benchmark score in all four subject areas (English, mathematics, reading, and science). A higher percentage of males than females (28 vs. 22 percent) achieved all four ACT college readiness benchmark scores. This pattern held across all racial/ethnic groups. Higher percentages of males than females achieved the four benchmark scores within the Asian (44 vs. 37 percent), White (35 vs. 28 percent), Native Hawaiian/Pacific Islander (18 vs. 12 percent), Hispanic (14 vs. 9 percent), American Indian/Alaska Native (14 vs. 10 percent), and Black (5 vs. 4 percent) racial/ethnic groups.

In the same year, 45 percent of all students met the ACT mathematics benchmark, and 30 percent of all students

met the science benchmark. A higher percentage of males than females met the benchmark score in mathematics (49 vs. 41 percent) and in science (34 vs. 26 percent). These patterns held within all racial/ethnic groups in both mathematics and science. For example, 29 percent of American Indian/Alaska Native males met the ACT mathematics benchmark, compared with 22 percent of their female peers; and 18 percent of Hispanic males met the science benchmark, compared with 12 percent of their female peers.

The percentages of students who met the ACT benchmarks in mathematics and science in 2011 differed across racial/ethnic groups, but exhibited similar patterns. The highest percentage of students meeting the science and mathematics benchmarks were Asian students (71 and 46 percent, respectively), followed by White (54 and 37 percent), Native Hawaiian/Pacific Islander (36 and 19 percent), Hispanic (30 and 15 percent), American Indian/Alaska Native (25 and 15 percent), and Black (14 and 6 percent) students. The same racial/ethnic

**Figure 24-1. Percentage of ACT test-taking population meeting all four college readiness benchmark scores, by race/ethnicity and sex: 2011**

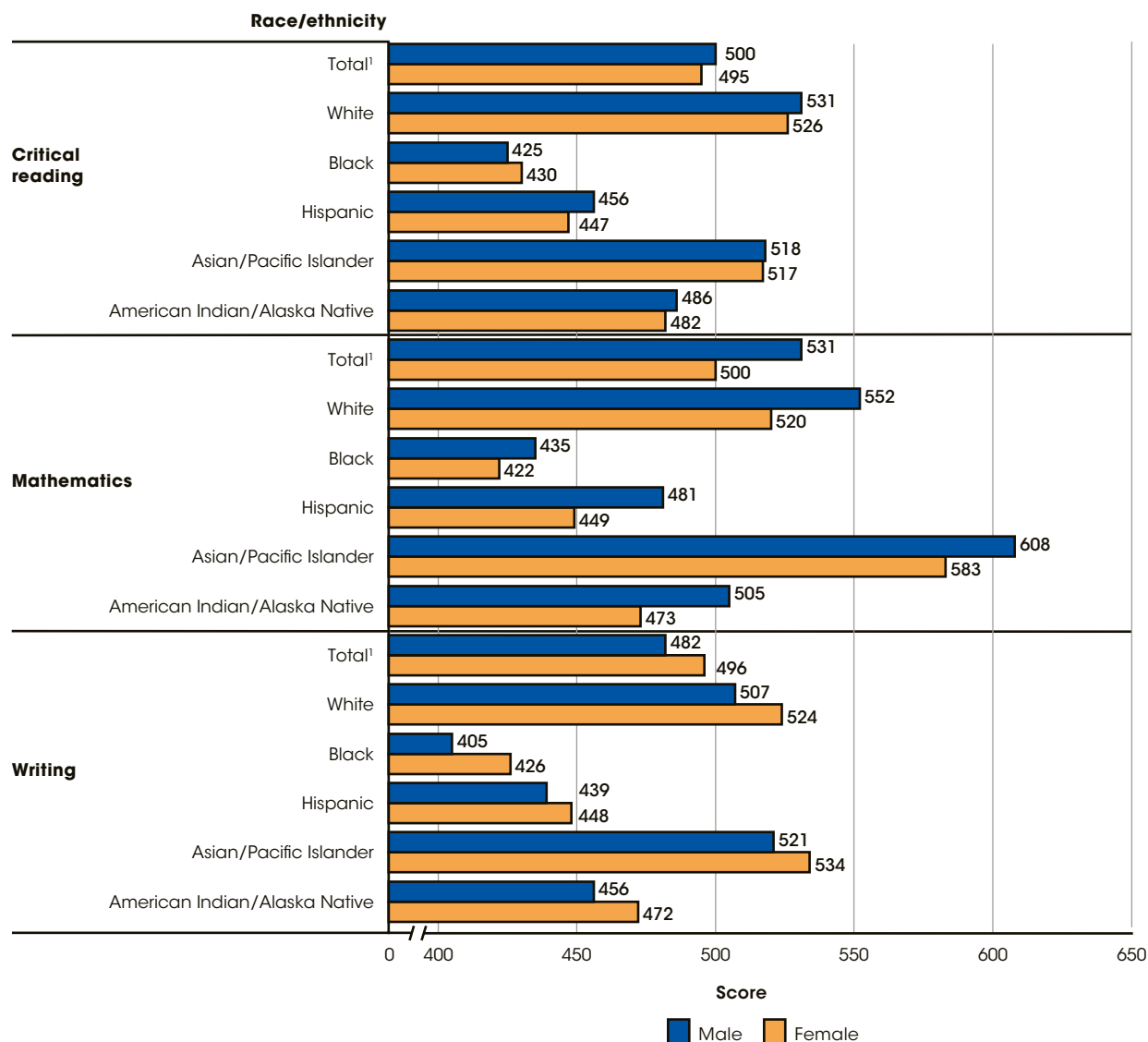


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: College readiness benchmark scores are based on the actual performance of approximately 90,000 college students from a nationally representative sample of 98 institutions and represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English Composition, College Algebra, an introductory social science course, and Biology. The benchmarks are median course placement values for these institutions and as such represent a typical set of expectations. The benchmark scores, out of a total possible score of 36, are 18 for English, 21 for Reading, 22 for Mathematics, and 24 for Science. Estimates are based on all students who took the ACT assessment during their sophomore, junior, or senior year and who graduated from high school in the spring of the respective year shown. Test-takers were asked to self-identify a single racial/ethnic group. Race categories exclude persons of Hispanic ethnicity.

SOURCE: American College Testing Program, *ACT National Scores Report*, 2011.

Figure 24-2. Average SAT scores for the 12th-grade SAT test-taking population, by subject, race/ethnicity, and sex: 2011



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data are for seniors who took the SAT anytime during high school (through March of their senior year). If a student took a test more than once, the most recent score was used. Possible scores on each part of the SAT range from 200 to 800. The critical reading section was formerly known as the verbal section. Test-takers were asked to self-identify a single racial/ethnic group, which included Mexican American, Puerto Rican, and Other Hispanic; however, for the purpose of this report these groups have been combined into Hispanic using a weighted average. Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available. Race categories exclude persons of Hispanic ethnicity.

SOURCE: The College Board, *College Bound Seniors*, 2011.

patterns of performance were found for both males and females.

In 2011, some 66 percent of students met the ACT English benchmark score, and 52 percent met the ACT reading benchmark score. Lower percentages of males than females met the benchmark scores in English (64 vs. 69 percent) and reading (51 vs. 53 percent). Males also met the English benchmark at a lower rate than females by race/ethnicity. For example, 31 percent of Black males met the ACT English benchmark, compared with 38 percent of Black females. The percentages of White, Black, Asian, Native Hawaiian/Pacific Islander, and American Indian/Alaska Native males who met the ACT

reading benchmark were lower than the percentages of their female peers who met it. This pattern was not observed, however, in reference to the percentages of Hispanic males and females who met the ACT reading benchmark.

The percentages of students meeting the ACT English and reading benchmarks varied across racial/ethnic groups. Higher percentages of White (77 percent) and Asian (76 percent) students met the English benchmark than Native Hawaiian/Pacific Islander (55 percent), American Indian/Alaska Native (47 percent), Hispanic (47 percent), and Black (35 percent) students. This racial/ethnic pattern was also observed for the percentages of students meeting

the reading benchmark. Similar racial/ethnic patterns of performance in English and reading were observed for both males and females.

In terms of SAT scores in 2011, the average score on the SAT critical reading section was 497 out of 800. Males had higher critical reading scores, on average, than females (500 vs. 495 points). This trend was observed for White, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students, with the largest difference observed between Hispanic males and females (a 9-point difference) and the smallest difference observed between Asian/Pacific Islander males and females (a 1-point difference). In contrast, Black males scored 5 points lower than females on the critical reading section.

Average critical reading scores on the SAT varied across racial/ethnic groups. The highest average score on the critical reading test was achieved by White students (528 points), followed by Asian/Pacific Islander (517 points), American Indian/Alaska Native (484 points), Hispanic (451 points), and Black students (428 points). The same racial/ethnic patterns of performance were found for males and females.

In the same year, the average score on the mathematics section of the SAT was 514 points. Males had higher mathematics scores, on average, than females (531 vs. 500 points). This pattern held for all racial/ethnic groups. The largest male-female score difference occurred for Hispanic students (a 33-point difference), followed by White and American Indian/Alaska Native (a 32-point

difference for each), Asian/Pacific Islander (a 25-point difference), and Black students (a 13-point difference).

Average mathematics scores varied across racial/ethnic groups. Asian/Pacific Islander students had the highest average mathematics score (595 points), followed by White (535 points), American Indian/Alaska Native (488 points), Hispanic (463 points), and Black students (427 points). The same racial/ethnic patterns of performance were found for males and females.

In 2011, the average score on the writing section of the SAT was 489 points. Males had lower average writing scores than females overall (482 vs. 496 points), as well as within racial/ethnic groups, with the largest average writing performance difference between males and females occurring for Black students (a 21-point difference), followed by White students (a 17-point difference), American Indian/Alaska Native students (a 16-point difference), Asian/Pacific Islander students (a 13-point difference), and Hispanic students (an 8-point difference).

Racial/ethnic patterns of performance for writing scores were similar to the racial/ethnic patterns of performance for mathematics scores. Asian/Pacific Islander students achieved the highest average writing score (528 points), followed by White (516 points), American Indian/Alaska Native (465 points), Hispanic (444 points), and Black students (417 points). The same racial/ethnic patterns of performance were found for males and females.

## Technical Notes

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The ACT consists of four sections: English, mathematics, reading, and science. Scores for each section range from 0 to 36. College readiness benchmark scores are based on the actual performance of approximately 90,000 college students from a nationally representative sample of 98 institutions and represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English composition, college algebra, an introductory social science course, and biology. The benchmarks are median course placement values for these institutions and as such represent a typical set of expectations.

The benchmark scores, out of a total possible score of 36, are 18 for English, 21 for reading, 22 for mathematics, and 24 for science. Estimates are based on all students who took the ACT assessment during their sophomore,

junior, or senior year and who graduated from high school in the spring of the respective year shown. The SAT includes a critical reading section, a writing section, and a mathematics section, each scored on a scale ranging from 200 to 800 points. Data are for seniors who took the SAT anytime during high school (through March of their senior year). If a student took a test more than once, the most recent score was used. The SAT information on Asians and Pacific Islanders is presented as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. Data used to calculate gaps discussed in the text are unrounded and, therefore, may be different from calculations using the rounded data from the accompanying table. For more information, please see the introduction to this report.



**Table 24-1. Percentage of ACT test-taking population meeting college readiness benchmark scores, by subject, sex, and race/ethnicity: 2010 and 2011**

Sex and race/ethnicity	All four subjects		Mathematics		Science		English		Reading	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total<sup>1</sup></b>	<b>24</b>	<b>25</b>	<b>43</b>	<b>45</b>	<b>29</b>	<b>30</b>	<b>66</b>	<b>66</b>	<b>52</b>	<b>52</b>
Sex										
Male	28	28	48	49	34	34	64	64	51	51
Female	21	22	40	41	25	26	69	69	53	53
Race/ethnicity										
White	30	31	52	54	36	37	77	77	62	62
Black	4	4	13	14	6	6	34	35	21	21
Hispanic	11	11	27	30	14	15	46	47	34	35
Asian/Pacific Islander	39	—	68	—	44	—	76	—	61	—
Asian	— <sup>2</sup>	41	— <sup>2</sup>	71	— <sup>2</sup>	46	— <sup>2</sup>	76	— <sup>2</sup>	62
Native Hawaiian/ Pacific Islander <sup>2</sup>	— <sup>2</sup>	15	— <sup>2</sup>	36	— <sup>2</sup>	19	— <sup>2</sup>	55	— <sup>2</sup>	39
American Indian/Alaska Native	12	11	26	25	17	15	50	47	39	36
Race/ethnicity by sex										
Male										
White	34	35	56	58	42	42	74	74	60	60
Black	4	5	14	15	7	7	30	31	18	19
Hispanic	13	14	32	35	18	18	44	46	34	35
Asian/Pacific Islander	43	—	72	—	50	—	74	—	61	—
Asian <sup>2</sup>	— <sup>2</sup>	44	— <sup>2</sup>	74	— <sup>2</sup>	51	— <sup>2</sup>	74	— <sup>2</sup>	61
Native Hawaiian/ Pacific Islander <sup>2</sup>	— <sup>2</sup>	18	— <sup>2</sup>	40	— <sup>2</sup>	22	— <sup>2</sup>	52	— <sup>2</sup>	38
American Indian/Alaska Native	15	14	30	29	21	19	47	44	38	35
Female										
White	27	28	48	50	32	33	80	80	63	64
Black	4	4	12	13	6	6	37	38	23	23
Hispanic	9	9	24	26	11	12	47	49	34	35
Asian/Pacific Islander	36	—	65	—	40	—	78	—	62	—
Asian <sup>2</sup>	— <sup>2</sup>	37	— <sup>2</sup>	69	— <sup>2</sup>	41	— <sup>2</sup>	78	— <sup>2</sup>	63
Native Hawaiian/ Pacific Islander <sup>2</sup>	— <sup>2</sup>	12	— <sup>2</sup>	32	— <sup>2</sup>	16	— <sup>2</sup>	58	— <sup>2</sup>	39
American Indian/Alaska Native	10	10	22	22	14	12	53	49	40	37

— Not available.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> Asian and Native Hawaiian/Pacific Islander estimates are only available as a combined category and cannot be separated.

NOTE: College readiness benchmark scores are based on the actual performance of approximately 90,000 college students from a nationally representative sample of 98 institutions and represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English Composition, College Algebra, an introductory social science course, and Biology. The benchmarks are median course placement values for these institutions and as such represent a typical set of expectations. The benchmark scores, out of a total possible score of 36, are 18 for English, 21 for Reading, 22 for Mathematics, and 24 for Science. Estimates are based on all students who took the ACT assessment during their sophomore, junior, or senior year and who graduated from high school in the spring of the respective year shown. Test-takers were asked to self-identify a single racial/ethnic group. Race categories exclude persons of Hispanic ethnicity.

SOURCE: American College Testing Program, *ACT National Scores Report*, 2010 and 2011.

**Table 24-2. Average SAT scores for students who took the SAT during high school, by subject, sex, and race/ethnicity: Selected years, 2008–11**

Sex and race/ethnicity	Critical reading				Mathematics				Writing			
	2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
<b>Total<sup>1</sup></b>	<b>502</b>	<b>501</b>	<b>501</b>	<b>497</b>	<b>515</b>	<b>515</b>	<b>516</b>	<b>514</b>	<b>494</b>	<b>493</b>	<b>492</b>	<b>489</b>
<b>Sex</b>												
Male	504	503	503	500	533	534	534	531	488	486	486	482
Female	500	498	498	495	500	499	500	500	501	499	498	496
<b>Race/ethnicity</b>												
White	528	528	528	528	537	536	536	535	518	517	516	516
Black	430	429	429	428	426	426	428	427	424	421	420	417
Hispanic	455	454	454	451	461	461	463	463	447	447	447	444
Mexican or Mexican American	454	453	454	451	463	463	467	466	447	446	448	445
Puerto Rican	456	452	454	452	453	450	452	452	445	443	443	442
Other Hispanic	455	455	454	451	461	461	462	462	448	448	447	444
Asian/Pacific Islander	513	516	519	517	581	587	591	595	516	520	526	528
American Indian/Alaska Native	485	486	485	484	491	493	492	488	470	469	467	465
<b>Race/ethnicity by sex</b>												
<b>Male</b>												
White	530	530	530	531	555	555	555	552	510	509	508	507
Black	425	426	426	425	434	435	436	435	412	410	408	405
Hispanic	459	459	459	456	481	481	483	481	444	443	443	439
Mexican or Mexican American	456	457	459	455	482	482	486	484	443	442	444	440
Puerto Rican	459	453	456	454	470	467	468	467	439	436	437	435
Other Hispanic	461	461	460	457	482	483	484	482	445	446	444	440
Asian/Pacific Islander	513	516	520	518	596	602	605	608	510	514	520	521
American Indian/Alaska Native	487	491	487	486	509	513	508	505	463	465	459	456
<b>Female</b>												
White	526	526	526	526	521	520	519	520	526	524	523	524
Black	433	431	432	430	420	420	422	422	433	429	428	426
Hispanic	452	450	450	447	446	445	447	449	450	449	450	448
Mexican or Mexican American	452	450	451	448	448	447	451	452	451	449	451	449
Puerto Rican	454	450	452	450	440	437	438	439	450	448	448	448
Other Hispanic	451	450	449	446	445	445	446	448	450	449	449	447
Asian/Pacific Islander	513	515	519	517	567	572	577	583	523	527	532	534
American Indian/Alaska Native	483	482	484	482	475	476	479	473	477	473	474	472

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data are for seniors who took the SAT anytime during high school (through March of their senior year). If a student took a test more than once, the most recent score was used. Possible scores on each part of the SAT range from 200 to 800. Test-takers were asked to self-identify a single racial/ethnic group, which included Mexican American, Puerto Rican, and Other Hispanic; however, for the purpose of this report these groups have been combined into Hispanic using a weighted average. Race categories exclude persons of Hispanic ethnicity.

SOURCE: The College Board, *College Bound Seniors*, 2008–2011.

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## Indicator 25

# Graduation Rates

*For the class of 2008–09 in public high schools, a lower percentage of males than females graduated on time with a regular diploma (71.8 vs. 78.9 percent). This pattern was also found for Whites (78.9 vs. 84.0 percent), Blacks (57.3 vs. 69.3 percent), Hispanics (60.3 vs. 69.7 percent), Asians/Pacific Islanders (88.0 vs. 93.1 percent), and American Indians/Alaska Natives (60.5 vs. 67.7 percent).*

The averaged freshman graduation rate (AFGR) estimates the proportion of public high school freshmen who graduate with a regular diploma 4 years after starting 9th grade. The AFGR for the class of 2008–09 was 75.5 percent among public school students in the United States. Overall, the AFGR by state for the class of 2008–09 ranged from 56.3 percent in Nevada to 90.7 percent in Wisconsin.

For the class of 2008–09, a lower percentage of males than females graduated with a regular diploma (71.8 vs. 78.9 percent). This pattern was also found for Whites (78.9 vs. 84.0 percent), Blacks (57.3 vs. 69.3 percent), Hispanics (60.3 vs. 69.7 percent), Asians/Pacific Islanders (88.0 vs. 93.1 percent), and American Indians/Alaska Natives (60.5 vs. 67.7 percent). The AFGRs for males were also lower than the AFGRs for females across all 50 states and the District of Columbia.

Differences in the AFGR were also found across racial/ethnic groups. In 2008–09, a higher percentage of Asians/Pacific Islanders (90.4 percent) than Whites (81.4 percent), Blacks (63.2 percent), Hispanics (64.9 percent), and American Indians/Alaska Natives (64.1 percent) graduated on time with a regular diploma. This overall race/ethnicity pattern was similar among males. A higher percentage of Asian/Pacific Islander males (88.0 percent) than White (78.9 percent), Black (57.3 percent), Hispanic (60.3 percent), and American Indian/Alaska Native males (60.5 percent) graduated on time with a regular diploma. Among females, Asians/Pacific Islanders (93.1 percent) and Whites (84.0 percent) had higher graduation rates than all other racial/ethnic groups shown. Black females (69.3 percent) and Hispanic females (69.7 percent) had higher graduation rates than American Indian/Alaska Native females (67.7 percent).

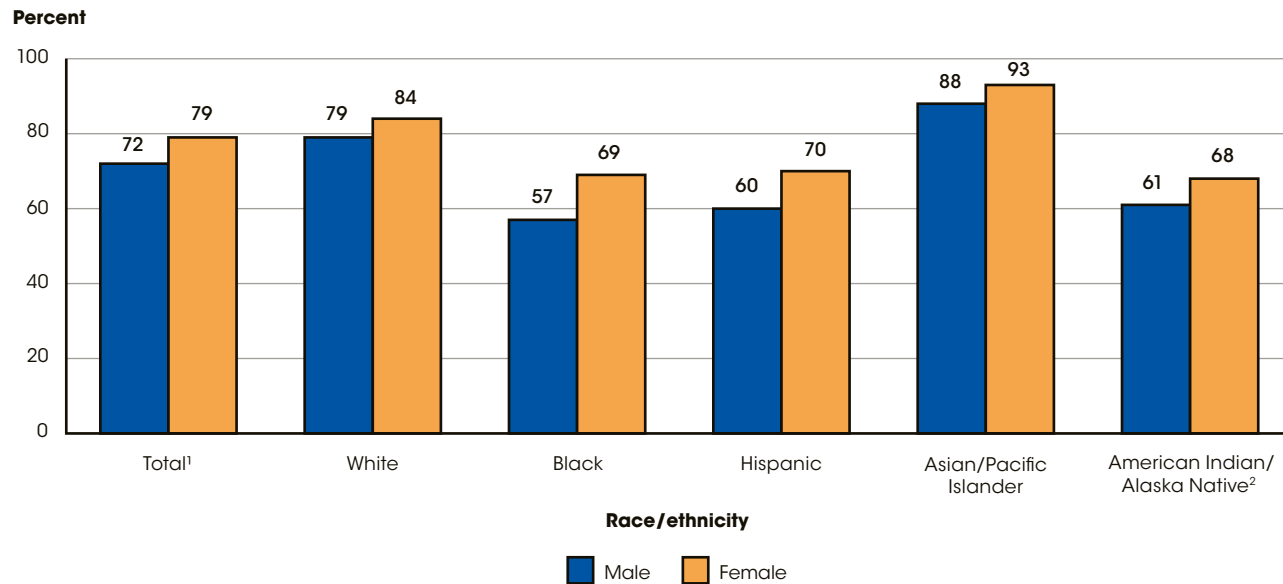
### Technical Notes

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The AFGR is an estimate of the percentage of an entering freshman class graduating in 4 years. For 2008–09, it equals the total number of regular diploma recipients in 2008–09 divided by the average membership of the 8th-grade class in 2004–05, the 9th-grade class in 2005–06, and the 10th-grade class in 2006–07. The United States total includes all 50 states and the District of Columbia. This indicator presents information on

Asians and Pacific Islanders as a combined category because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.

Figure 25-1. Averaged freshman graduation rate (AFGR) in public schools, by race/ethnicity and sex: 2008–09



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure, and all 50 states and the District of Columbia.

<sup>2</sup>The rate for American Indians/Alaska Natives excludes students served in schools operated by the Bureau of Indian Education.

NOTE: AFGR is an estimate of the percentage of an entering freshman class graduating in 4 years. For 2008–09, it equals the total number of diploma recipients in 2008–09 divided by the average membership of the 8th-grade class in 2004–05, the 9th-grade class in 2005–06, and the 10th-grade class in 2006–07.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), State Dropout and Completer Data File: School year 2007–08, version 1b; School year 2008–09, version 1a State Non-Fiscal Data File: School year 2003–04, version 1b; 2004–05, version 1f; 2005–06 version 1b; 2006–07, version 1c LEA Dropout and Completer Data File (Restricted-Use): School year 2008–09, version 1a School File: School year 2003–04, version 1a; 2004–05, version 1b; 2005–06, version 1a; 2006–07, version 1c; 2008–09, version 1b.

**Table 25-1. Averaged freshman graduation rate (AFGR) in public schools, by race/ethnicity, sex, and state or jurisdiction: 2008-09**

State or jurisdiction	Total <sup>1</sup>			White			Black			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native <sup>2</sup>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>United States<sup>3,4,5</sup></b>	<b>75.5</b>	<b>71.8</b>	<b>78.9</b>	<b>81.4</b>	<b>78.9</b>	<b>84.0</b>	<b>63.2</b>	<b>57.3</b>	<b>69.3</b>	<b>64.9</b>	<b>60.3</b>	<b>69.7</b>	<b>90.4</b>	<b>88.0</b>	<b>93.1</b>	<b>64.1</b>	<b>60.5</b>	<b>67.7</b>
Alabama	69.9	65.4	74.7	74.5	71.5	77.7	62.2	55.0	69.6	63.0	57.9	69.0	90.2	87.2	93.5	84.7	80.3	89.3
Alaska <sup>5</sup>	72.6	65.1	71.0	75.2	72.4	78.3	56.3	52.1	60.6	89.4	83.0	96.5	63.7	64.1	63.3	51.8	48.2	55.6
Arizona	72.5	68.5	76.9	75.8	72.4	79.5	78.7	76.7	80.9	69.2	63.7	75.1	98.9	97.1	100.0	53.8	50.3	57.6
Arkansas	74.0	71.0	77.3	75.5	73.6	77.5	68.0	62.0	74.3	75.7	70.8	81.4	94.4	87.9	100.0	79.2	74.8	84.2
California <sup>5,6,7</sup>	71.0	66.2	74.9	80.8	77.5	84.2	57.7	52.6	62.9	61.6	56.2	67.2	87.1	84.6	89.8	65.8	59.5	72.3
Colorado	77.6	73.9	81.5	84.3	81.1	87.7	69.8	66.0	74.0	60.8	55.7	66.1	96.3	95.3	97.3	61.4	56.4	67.1
Connecticut	75.4	72.2	78.8	81.8	79.1	84.7	63.5	58.3	69.2	55.5	51.8	59.5	88.5	87.3	89.9	61.1	60.8	61.5
Delaware	73.7	69.9	77.8	79.0	76.2	82.1	66.8	60.8	72.9	61.3	57.8	64.8	91.8	90.6	92.9	81.6	60.0	100.0
District of Columbia	62.4	55.4	68.9	77.5	79.8	75.8	62.8	55.3	69.8	50.1	44.8	54.7	84.6	82.7	86.4	100.0	75.0	100.0
Florida	68.9	63.7	72.3	71.1	68.2	74.3	59.8	53.9	66.0	66.9	61.7	72.5	94.0	90.3	97.9	68.4	67.9	69.0
Georgia	67.8	62.9	72.6	73.0	70.0	76.3	61.2	54.0	68.8	56.6	52.8	60.6	94.1	92.4	95.7	76.1	78.4	73.9
Hawaii	75.3	73.7	77.1	70.5	70.0	71.0	75.3	76.3	74.3	71.0	71.3	70.6	76.7	74.7	79.1	77.0	64.5	85.3
Idaho	80.6	77.8	83.7	81.6	79.0	84.4	91.9	94.5	88.8	72.7	67.8	77.8	96.7	96.7	96.8	61.5	53.8	69.8
Illinois	77.7	74.3	81.2	85.7	83.7	87.8	60.8	54.2	67.4	68.8	63.6	74.2	92.9	91.7	94.2	70.6	70.6	70.6
Indiana	75.2	70.3	78.2	77.1	73.9	80.4	56.4	48.5	64.2	66.8	60.6	73.9	100.0	99.2	100.0	68.6	60.4	76.4
Iowa	85.7	83.1	88.5	87.4	85.2	89.7	71.5	66.6	76.9	68.7	61.3	76.6	98.1	92.4	100.0	63.6	58.2	68.6
Kansas	80.2	77.5	82.0	83.7	81.9	85.7	66.6	62.9	70.3	63.5	59.0	68.5	87.9	89.0	86.7	69.0	69.0	69.0
Kentucky	77.6	73.2	81.2	77.8	74.2	81.6	70.2	63.8	77.0	80.2	74.4	86.2	99.0	100.0	95.1	7.2	7.3	7.2
Louisiana	67.3	61.4	73.3	73.2	68.8	77.7	59.6	51.7	67.6	73.6	68.1	79.6	94.2	91.4	97.6	70.0	63.8	76.9
Maine <sup>4</sup>	79.9	77.8	82.2	79.4	77.2	81.8	90.4	90.7	90.0	77.1	74.1	80.8	100.0	100.0	100.0	87.8	94.7	80.4
Maryland	80.1	75.8	84.7	85.6	83.0	88.3	71.8	65.1	78.8	76.8	72.0	82.0	98.8	97.0	100.0	71.5	63.8	79.3
Massachusetts <sup>5</sup>	83.3	80.1	85.6	86.1	84.1	88.2	73.9	69.3	78.7	67.7	62.7	73.0	91.9	89.5	94.6	76.0	64.2	87.1
Michigan	75.3	71.6	79.2	80.9	78.1	84.0	58.5	51.8	65.2	61.2	56.3	66.6	94.5	92.0	97.2	64.7	62.6	67.0
Minnesota	87.4	85.2	89.8	91.4	89.4	93.5	69.1	65.6	73.0	63.9	60.3	67.9	90.4	88.1	93.1	56.7	54.1	59.2
Mississippi <sup>5</sup>	62.0	56.5	67.6	65.3	61.5	69.5	58.6	51.1	65.7	67.7	64.8	71.1	79.3	75.0	84.3	49.3	42.1	54.4
Missouri	83.1	81.0	85.3	85.7	84.4	87.0	71.3	65.8	77.1	80.3	76.6	84.5	100.0	100.0	100.0	83.4	81.9	84.6
Montana	82.0	80.5	83.5	84.5	83.2	86.0	73.9	78.5	69.4	76.6	71.1	83.6	92.0	85.3	98.4	63.1	61.3	64.9
Nebraska	82.9	79.9	86.2	88.0	85.9	90.3	56.7	49.0	64.6	66.9	60.2	74.0	92.4	90.3	95.0	56.3	50.2	62.3
Nevada <sup>6,8</sup>	56.3	53.5	59.7	63.3	60.0	66.9	45.0	42.0	48.3	45.3	42.3	48.7	80.2	79.2	81.3	44.8	43.7	46.1
New Hampshire	84.3	82.4	86.3	84.2	82.3	86.2	100.0	100.0	100.0	41.6	39.0	44.5	100.0	100.0	100.0	77.6	81.6	73.5
New Jersey <sup>5</sup>	85.3	84.2	85.5	89.1	88.9	89.2	75.9	74.4	77.3	76.1	74.5	77.9	95.6	95.0	96.2	70.5	57.9	87.4
New Mexico	64.8	61.3	68.5	72.4	69.2	75.9	67.4	62.5	72.9	60.7	57.4	64.2	93.3	93.7	92.8	59.9	54.2	65.5
New York	73.5	70.8	76.7	85.1	83.2	87.1	58.1	53.8	62.5	57.4	53.4	61.6	88.4	84.0	93.4	60.6	56.5	64.4
North Carolina	75.1	69.7	78.4	79.3	76.3	82.6	65.0	58.3	72.0	66.5	62.4	71.1	93.3	93.4	93.2	67.2	64.0	70.5
North Dakota	87.4	86.0	89.0	91.1	89.8	92.4	100.0	100.0	100.0	72.4	68.9	77.3	93.8	93.2	94.4	52.4	49.2	55.5
Ohio	79.6	77.1	82.1	84.9	83.1	86.9	56.8	52.4	61.6	66.0	60.7	72.0	98.7	95.5	100.0	83.9	74.4	93.6
Oklahoma	77.3	75.2	79.6	79.0	77.3	80.9	68.7	63.9	73.9	73.7	69.7	78.1	100.0	100.0	100.0	75.5	74.2	76.8
Oregon	76.5	73.2	79.3	77.4	74.9	80.1	61.1	59.0	63.4	70.7	65.4	76.4	89.8	86.7	93.1	62.3	58.1	66.9

See notes at end of table.

**Table 25-1. Averaged freshman graduation rate (AFGR) in public schools, by race/ethnicity, sex, and state or jurisdiction: 2008-09—Continued**

State or jurisdiction	Total <sup>1</sup>			White			Black			Hispanic			Asian/Pacific Islander			American Indian/ Alaska Native <sup>2</sup>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>United States<sup>3,4,5</sup></b>	<b>75.5</b>	<b>71.8</b>	<b>78.9</b>	<b>81.4</b>	<b>78.9</b>	<b>84.0</b>	<b>63.2</b>	<b>57.3</b>	<b>69.3</b>	<b>64.9</b>	<b>60.3</b>	<b>69.7</b>	<b>90.4</b>	<b>88.0</b>	<b>93.1</b>	<b>64.1</b>	<b>60.5</b>	<b>67.7</b>
Pennsylvania	80.5	77.3	83.5	84.4	82.0	86.9	64.0	58.3	69.9	65.3	60.4	70.7	99.3	97.1	100.0	72.5	66.9	79.2
Rhode Island	75.3	71.4	79.4	77.8	75.0	80.9	70.5	65.4	76.1	67.2	59.8	74.8	75.7	70.2	80.8	75.9	67.4	85.1
South Carolina	66.0	60.1	72.7	71.6	67.3	76.2	58.9	49.9	68.2	64.0	60.9	67.4	90.3	84.0	97.1	62.9	57.4	69.0
South Dakota	81.7	78.7	84.9	85.1	82.1	88.3	85.5	79.9	92.7	66.5	63.3	69.9	99.0	91.2	100.0	54.4	52.9	56.0
Tennessee	77.4	74.0	81.1	79.4	77.5	81.4	71.4	63.9	79.1	74.3	67.9	81.6	97.8	92.3	100.0	83.2	78.1	88.1
Texas	75.4	72.7	78.4	82.7	80.9	84.7	68.0	64.2	72.0	69.6	66.4	73.1	100.0	99.4	100.0	81.9	77.2	86.6
Utah	79.4	76.2	82.3	81.7	79.1	84.4	70.3	60.1	80.8	61.2	56.6	66.2	91.3	88.7	94.2	62.9	55.0	69.4
Vermont <sup>5,9</sup>	89.6	87.3	91.7	89.1	86.9	90.9	84.6	75.3	100.0	81.3	96.1	97.7	100.0	100.0	100.0	83.0	83.6	87.1
Virginia	78.4	73.7	82.9	82.3	79.1	85.8	67.2	59.8	74.7	71.8	65.4	78.9	99.4	97.5	100.0	79.7	81.7	77.6
Washington	73.7	69.1	77.8	75.3	71.2	79.7	60.7	56.6	64.9	63.1	58.0	68.6	87.6	84.3	91.1	51.3	46.9	55.7
West Virginia	77.0	74.1	80.1	77.0	74.2	80.0	70.2	64.6	76.7	88.1	83.1	92.7	100.0	100.0	100.0	57.1	55.2	58.4
Wisconsin	90.7	88.2	93.4	95.0	93.2	97.0	65.3	58.2	72.7	77.3	73.3	81.6	99.5	96.4	100.0	74.1	71.6	76.5
Wyoming	75.2	71.5	79.2	77.1	73.8	80.7	65.0	59.3	72.2	69.6	60.3	80.7	87.3	94.2	80.2	45.0	46.9	42.3

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> The rate for American Indians/Alaska Natives excludes students served in schools operated by the Bureau of Indian Education.

<sup>3</sup> The United States total includes all 50 states and the District of Columbia.

<sup>4</sup> Maine reported 1,169 diplomas that were awarded to students attending private high schools that received a majority of their funding from public sources. These 1,169 diplomas were excluded from Maine's and the United State's AFGR calculations as the students were not reported in enrollment for prior years. These 1,169 diplomas were prorated out of the diploma counts used in the calculation of the AFGR by race/ethnicity and sex.

<sup>5</sup> Alaska, California, Massachusetts, Mississippi, New Jersey, and Vermont reported students in seven race categories for 2008-09, rather than five. For these states the reported Asian and Pacific Islander categories were combined for this table. The "two or more races" category was excluded from the detail for these states but included in the total.

<sup>6</sup> Due to item nonresponse, data for California and Nevada were imputed based on prior year reported data.

<sup>7</sup> Due to item nonresponse at the school district level, sex distributions within race for California were taken from prior year reported data.

<sup>8</sup> Due to item nonresponse at the school district level, sex distributions in Nevada were based on the sex distribution of the 12th-graders enrolled in the graduation year. Because Nevada was unable to report enrollment data by race/ethnicity for 2004-05, the year required for 8th-grade enrollment in the AFGR calculations, race/ethnicity and sex distributions for the 8th-grade enrollment were imputed by averaging the reported data for 2003-04 and 2005-06 and then adjusting them to the 2004-05 reported grade total.

<sup>9</sup> Due to item nonresponse, specifically the lack of race/ethnicity and sex data for diplomas for several years, race/ethnicity and sex distributions were taken from the reported 12th-grade enrollments and applied to the reported diploma total for Vermont.

NOTE: AFGR is an estimate of the percentage of an entering freshman class graduating in 4 years. For 2008-09, it equals the total number of diploma recipients in 2008-09 divided by the average membership of the 8th-grade class in 2004-05, the 9th-grade class in 2005-06, and the 10th-grade class in 2006-07. Ungraded students were allocated to individual grades proportional to each state's enrollment in those grades. Due to the time lapse between the reporting of enrollments and graduates, calculated rates may exceed 100 percent. For the purpose of reporting, these rates have been top coded to 100 percent. Data in this table may differ from previously released tables due to the imputation of sex detail and missing race/ethnicity detail. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), State Dropout and Completer Data File: School year 2007-08, version 1b; School year 2008-09, version 1a State Non-Fiscal Data File: School year 2003-04, version 1b; 2004-05, version 1f; 2005-06 version 1b; 2006-07, version 1c LEA Dropout and Completer Data File (Restricted-Use): School year 2008-09, version 1a School File: School year 2003-04, version 1a; 2004-05, version 1b; 2005-06, version 1a; 2006-07, version 1c; 2008-09, version 1b.

## Indicator 26 Status Dropout Rates

*In 2010, the status dropout rate was higher for males (8 percent) than for females (6 percent). This pattern was also found for Whites, Blacks, and Hispanics. Females of two or more races, however, had higher status dropout rates (8 percent) than their male counterparts (2 percent). No measurable differences in status dropout rates by sex were found for Asians or American Indians/Alaska Natives.*

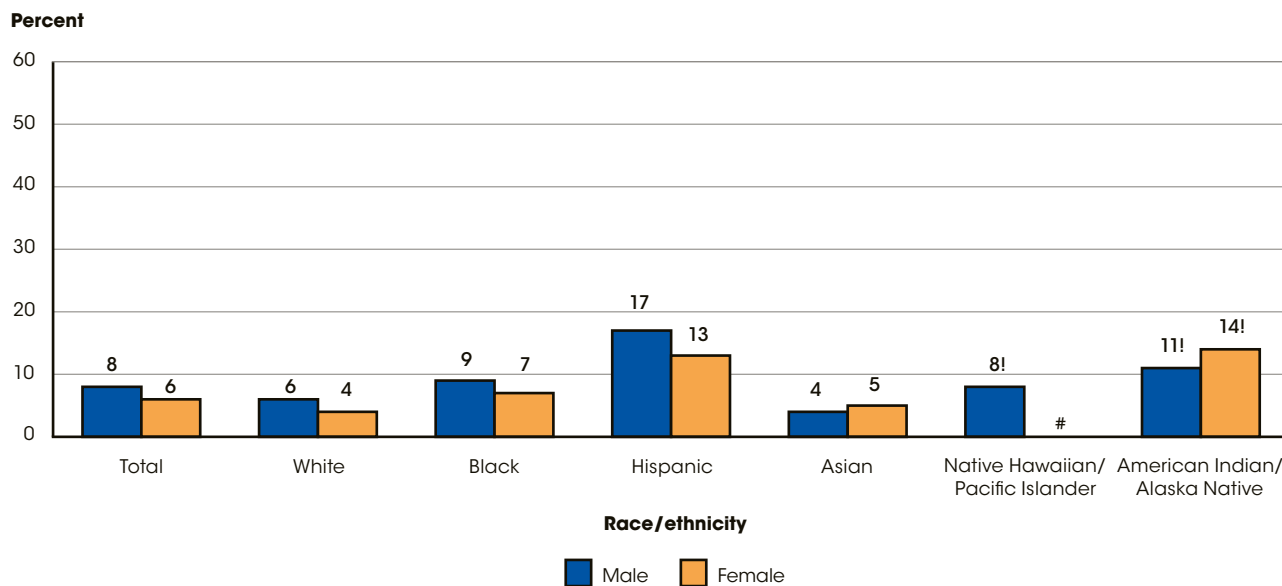
The *status dropout rate* represents the percentage of 16- through 24-year-olds who are not enrolled in school and have not earned a high school credential (either a diploma or an equivalency credential such as a General Educational Development [GED] certificate). In 2010, the status dropout rate was 7 percent.

Status dropout rates varied across racial/ethnic groups. In 2010, status dropout rates were higher for Hispanics (15 percent) than for Whites (5 percent), Blacks (8 percent), Asians (4 percent), Native Hawaiians/Pacific Islanders (5 percent), and persons of two or more races (5 percent). Blacks had higher status dropout rates than Whites and Asians. In addition, American Indians/Alaska Natives (12 percent) had higher dropout rates than Whites, Asians, and persons of two or more races.

Overall, the status dropout rate in 2010 was higher for males (8 percent) than for females (6 percent). This pattern was also found for Whites, Blacks, and Hispanics. Females of two or more races, however, had higher status dropout rates (8 percent) than their male counterparts (2 percent). No measurable differences in status dropout rates by sex were found for Asians or American Indians/Alaska Natives.

Among males, status dropout rates were higher for Hispanics (17 percent) than for Whites (6 percent), Blacks (9 percent), Asians (4 percent), or Native Hawaiians/Pacific Islanders (8 percent). Black males (9 percent) had higher status dropout rates than White (6 percent) and Asian (4 percent) males. Among females, status dropout rates were higher for Hispanics (13 percent) than Whites

**Figure 26-1. Status dropout rates of 16- through 24-year-olds in the civilian, noninstitutionalized population, by race/ethnicity and sex: October Supplement, 2010**



# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

NOTE: Reporting standards for males of two or more races were not met; therefore, data for two or more races are not shown in the figure. The data presented here represent status dropout rates, which is the percentage of civilian, noninstitutionalized 16- to 24-year-olds who are not in high school and who have not earned a high school credential (either a diploma or equivalency credential such as a GED). The status dropout rate includes all dropouts (regardless of when they last attended school), as well as individuals who may have never attended school in the United States, such as immigrants who did not complete a high school diploma in their home country. Young adults in the military or those who are incarcerated, for instance, are not included in this measure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 2010.



(4 percent), Blacks (7 percent), or Asians (5 percent). Black females had higher status dropout rates than White females. American Indian/Alaska Native females (14 percent) had higher dropout rates than Asian and White females, but no measurable differences were found between American Indian/Alaska Native females and females from any other racial/ethnic group in 2010.

Comparisons between 2008 and 2010 revealed some differences. Overall, the status dropout rate was higher in

2008 than in 2010 (8 vs. 7 percent). This finding was also true for Blacks (10 vs. 8 percent) and Hispanics (18 vs. 15 percent). Among males, no measurable differences either overall or by race/ethnicity were found between 2008 and 2010. However, females had a higher status dropout rate in 2008 than in 2010 (8 vs. 6 percent). This finding was also true for Black females (11 vs. 7 percent) and Hispanic females (17 vs. 13 percent).

## Technical Notes

The Current Population Survey (CPS) estimates of the status dropout rate include civilian, noninstitutionalized 16- through 24-year-olds. Young adults in the military or

those who are incarcerated, for instance, are not included in the CPS measure.

**Table 26-1. Status dropout rates of 16- through 24-year-olds in the civilian, noninstitutionalized population, by race/ethnicity, year, and sex: October Supplement, 2008-10**

Year and sex	Total	White	Black	Hispanic	Asian	Native Hawaiian/ Pacific Islander	American Indian/ Alaska Native	Two or more races
<b>Total</b>								
2008	8.0	4.8	9.9	18.3	4.5	‡	14.6	4.2
2009	8.1	5.2	9.3	17.6	2.1	18.4	13.2	6.5
2010	7.4	5.1	8.0	15.1	4.1	5.0!	12.4	5.4
<b>Male</b>								
2008	8.5	5.4	8.7	19.9	3.9	‡	18.6	3.6!
2009	9.1	6.3	10.6	19.0	‡	26.9!	12.3!	5.5!
2010	8.5	5.9	9.5	17.3	3.6	8.5!	10.6!	‡
<b>Female</b>								
2008	7.5	4.2	11.1	16.7	5.1	‡	11.6!	4.8!
2009	7.0	4.1	8.1	16.1	3.0!	‡	14.1!	7.5
2010	6.3	4.2	6.7	12.8	4.5	#	14.2!	8.2

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: The data presented here represent status dropout rates, which is the percentage of civilian, noninstitutionalized 16- to 24-year-olds who are not in high school and who have not earned a high school credential (either a diploma or equivalency credential such as a GED). The status dropout rate includes all dropouts (regardless of when they last attended school), as well as individuals who may have never attended school in the United States, such as immigrants who did not complete a high school diploma in their home country. Young adults in the military or those who are incarcerated, for instance, are not included in this measure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 2008-2010.

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# Chapter 5

## College Knowledge

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Chapter 5 examines the extent to which males and females across and within racial/ethnic groups have postsecondary aspirations, complete specific steps toward postsecondary enrollment, consult various sources for information about college, report the importance of specific factors in their decision to apply to and enroll in postsecondary institutions, and participate in college preparatory and awareness programs.

Students' aspirations to continue their education after high school are shaped by personal and environmental factors such as family and community expectations. In addition to parents' educational attainment, parental encouragement, socioeconomic status (SES), and students' academic abilities, the availability of resources—such as access to information and guidance—has also been associated with students' predispositions toward postsecondary education (Bers and Galowich 2002; Butner et al. 2001; Hossler, Schmit, and Vesper 1999; McDonough 1997). For example, research has shown that the association between SES and enrollment in 2- and 4-year postsecondary institutions is reduced when students are exposed to information and guidance about postsecondary education and complete specific steps of the postsecondary education search and decisionmaking process (i.e., visiting and applying to postsecondary institutions and exploring and applying for financial aid; Plank and Jordan 2001).

Often, low-income and first-generation students do not have the knowledge necessary to successfully transition from high school to a postsecondary institution. The entry process, which involves taking admissions tests, researching schools, and applying to and ultimately selecting a postsecondary institution, can be difficult for many first-generation students to navigate (Cabrera and La Nasa 2000; Roderick et al. 2008). Lacking the proper guidance and information about this process may be associated with lower postsecondary enrollment rates (Choy et al. 2000; Cunningham, Erisman, and Looney 2007; Horn and Chen 1998; Ishitani and Snider 2004; Kao and Tienda 1998; Plank and Jordan 2001; Venezia and Kirst 2005).

One of the first steps in the college application process is taking entrance exams. To increase their chances of success, some students complete various steps in preparation for exams such as the SAT or ACT. There is evidence that taking advantage of SAT/ACT preparation courses is associated with an increased likelihood of matriculation (e.g., Plank and Jordan 2001).

The extent to which students prepare for entrance exams may be associated with the number and type of postsecondary institutions they apply to while in high school. This decision may also be related to the informational resources available to students at school, at home, or in their community. Students who consult various sources—such as parents, teachers, guidance counselors, and individual institutions—for information about a postsecondary institution are more likely to attend a 2- or 4-year institution than those who do not seek out information from these sources (Bettinger, Long, Oreopoulos, and Sanbonmatsu 2009; Engberg and Wolniak 2010; Hill 2008; Horn and Chen 1998; Plank and Jordan 2001). There is evidence of a positive association between postsecondary enrollment and participating in college awareness programs that offer such assistance to students as providing academic support, career development, financial aid resources, and opportunities to visit campuses (Constantine et al. 2006; Johnson 1998).

Another important aspect of students' decisions about and predispositions toward postsecondary enrollment is their perception of costs and access to financial aid (Grodsky and Jones 2007; Horn, Chen, and Chapman 2003; King 2006; Terenzini, Cabrera, and Bernal 2001). Informing students about the availability of financial aid and assisting them with the process of applying for aid have been associated with increased postsecondary enrollment rates and financial aid applications (e.g., Bettinger et al. 2009; Constantine et al. 2006). When surveyed, students frequently cited financial aid and low expenses as "very important" factors in their postsecondary education selection process (Ingels and Dalton 2008). These factors have also been associated with greater postsecondary access and persistence (St. John, Paulsen, and Starkey 1996; Engberg and Wolniak 2010).

## Indicator 27 Postsecondary Plans

*Among 9th-grade students in 2009, a lower percentage of males than females (53 vs. 59 percent) expected to complete a bachelor's or graduate/professional degree as their highest level of education. Conversely, a higher percentage of males than females (17 vs. 12 percent) expected their highest level of education to be the completion of high school or less.*

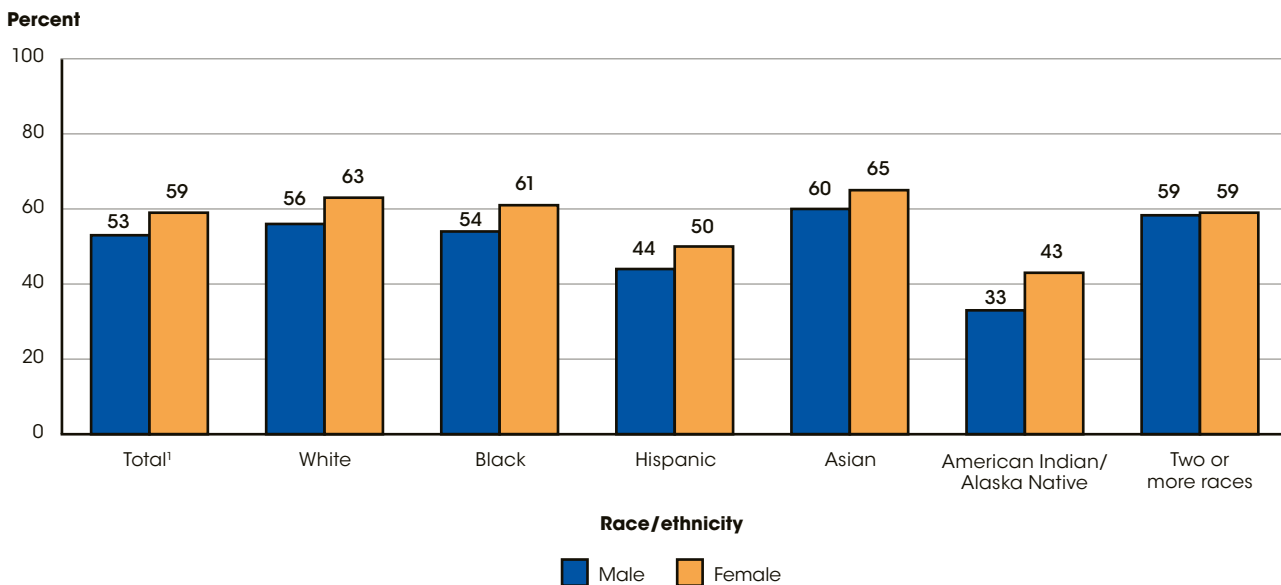
In 2009, ninth-graders in a nationally representative sample were asked to indicate the highest level of education they expected to achieve. About 56 percent expected to complete a bachelor's or graduate/professional degree, 7 percent expected to complete some college, 15 percent expected to complete high school or less, and 22 percent didn't know what level of education they would complete. A lower percentage of males than females (53 vs. 59 percent) expected to complete a bachelor's or graduate/professional degree. This pattern held for White males and females (56 vs. 63 percent) and Black males and females (54 vs. 61 percent), but no measurable differences by sex were observed for other racial/ethnic groups. Conversely, a higher percentage of males than females (17 vs. 12 percent) expected their highest level of education to be the completion of high school or less. This pattern of differences by sex was also observed for White males and females (15 vs. 9 percent) and Hispanic males and females (24 vs. 17 percent).

Some differences in 9th-graders' expectations concerning their educational attainment were found when comparing racial/ethnic groups. Higher percentages of Asian

students, White students, students of two or more races, and Black students than Hispanic or American Indian/Alaska Native students expected to complete a bachelor's or graduate/professional degree. This pattern was found for males as well. For example, 60 percent of Asian males, 59 percent of males of two or more races, 56 percent of White males, and 54 percent of Black males expected to complete at least a bachelor's degree, compared with 44 percent of Hispanic males and 33 percent of American Indian/Alaska Native males. Also, higher percentages of females who were Asian, White, of two or more races, and Black expected to complete a bachelor's or graduate degree than did Hispanic females. In contrast, the percentages of 9th-graders who expected to complete high school or less were higher for American Indian/Alaska Native and Hispanic students than for Asian students, White students, and students of two or more races. Also, a higher percentage of Black 9th-graders than Asian or White 9th-graders reported that they expected high school or less to be their highest level of education.

Ninth-graders were also asked to indicate what they planned to do during their first year after high school.

**Figure 27-1. Percentage of 9th-graders expecting to complete a bachelor's or graduate/professional degree, by race/ethnicity and sex: 2009**

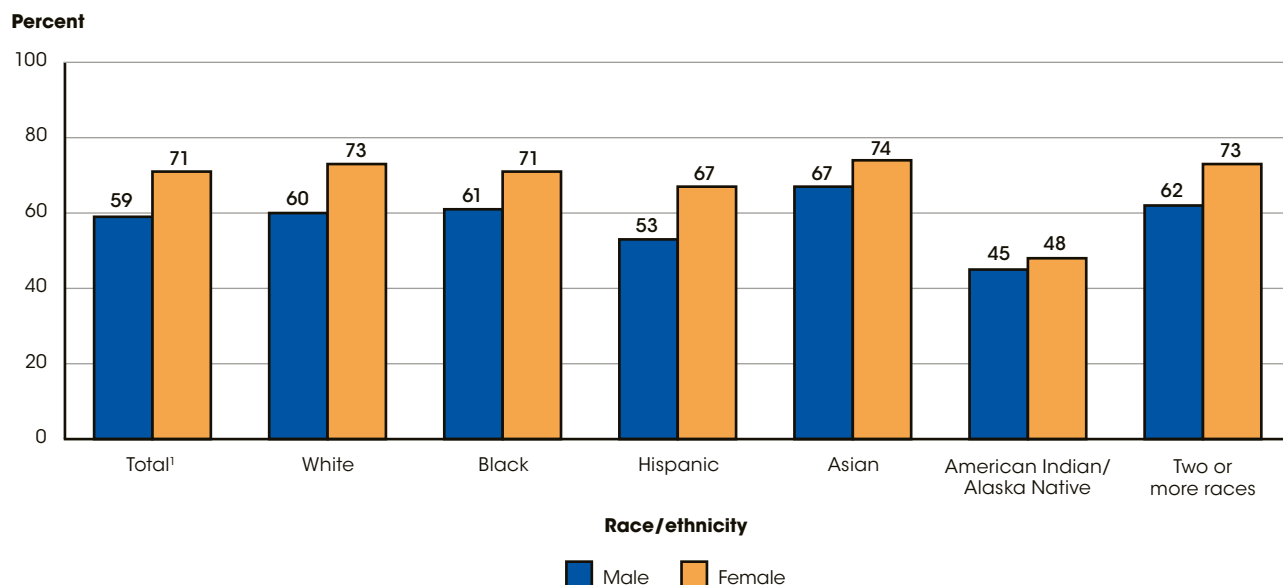


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

**Figure 27-2. Percentage of 9th-graders planning to enroll in a license/certificate, associate's, or bachelor's program during their first year after high school, by race/ethnicity and sex: 2009**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

Some 65 percent of 9th-graders indicated that they planned to enroll in a license/certificate, associate's, or bachelor's program during their first year after high school. A lower percentage of males (59 percent) than females (71 percent) planned to pursue a license/certificate, associate's, or bachelor's program in their first year after high school. This pattern held for White males and females (60 vs. 73 percent), Black males and females

(61 vs. 71 percent), Hispanic males and females (53 vs. 67 percent), and males and females of two or more races (62 vs. 73 percent). Patterns between racial/ethnic groups for students planning to enter a license/certificate, associate's, or bachelor's program were similar to those for students expecting to complete a bachelor's or graduate/professional degree.

## Technical Notes

“High school or less” includes students who indicated that they expected to complete less than high school, a high school diploma, or a General Educational Development (GED) credential. “Some college” includes those who expected to start an associate's degree, complete an

associate's degree, or start a bachelor's degree. “Graduate or professional degree” includes those who expected to complete a master's degree or start or complete a Ph.D., M.D., law, or other professional degree.

**Table 27-1. Percentage distribution of 9th-graders expecting to complete various educational levels, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Total	High school or less	Some college	Bachelor's or graduate/professional degree			Don't know
				Total	Bachelor's degree	Graduate or professional degree	
<b>Total</b>	<b>100.0</b>	<b>14.7</b>	<b>7.3</b>	<b>56.3</b>	<b>17.2</b>	<b>39.1</b>	<b>21.7</b>
Sex							
Male	100.0	17.3	8.1	53.1	18.6	34.5	21.5
Female	100.0	12.1	6.5	59.5	15.7	43.8	21.9
Race/ethnicity							
White	100.0	12.1	7.3	59.4	19.6	39.9	21.2
Black	100.0	17.6	6.6	57.8	13.8	44.0	18.0
Hispanic	100.0	20.4	7.2	47.0	14.6	32.4	25.5
Asian	100.0	5.8	6.7	62.9	15.2	47.7	24.7
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	28.5	10.9	37.8	11.8	26.0	22.8
Two or more races	100.0	14.1	8.4	58.7	15.9	42.8	18.8
Race/ethnicity by sex							
Male							
White	100.0	15.2	8.2	55.9	20.5	35.4	20.7
Black	100.0	18.9	8.2	53.9	17.1	36.8	19.0
Hispanic	100.0	23.8	6.8	44.4	16.4	28.0	25.0
Asian	100.0	6.8	9.4	60.4	14.1	46.3	23.4
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	34.0	8.4 !	33.3	7.4 !	25.9	24.3
Two or more races	100.0	14.0	9.4	58.6	18.6	40.0	18.0
Female							
White	100.0	8.8	6.4	63.2	18.6	44.6	21.7
Black	100.0	16.5	5.3	61.1	10.9	50.2	17.1
Hispanic	100.0	16.8	7.5	49.7	12.8	36.9	25.9
Asian	100.0	4.7 !	3.9 !	65.4	16.3	49.1	26.0
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	21.6 !	14.0	43.4	17.2 !	26.1 !	21.0 !
Two or more races	100.0	14.3	7.4	58.7	13.2	45.5	19.6

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

NOTE: "High school or less" includes students who indicated that they expected to complete less than high school, a high school diploma, or a General Educational Development (GED) credential. "Some college" includes those who expected to start an associate's degree, complete an associate's degree, or start a bachelor's degree. "Graduate or professional degree" includes those who expected to complete a master's degree or start or complete a Ph.D., M.D., law, or other professional degree. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.



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**Table 27-2. Percentage of 9th-graders planning different activities during their first year after high school, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	License/certificate, associate's, or bachelor's program				Apprenticeship	Join armed services
	At least one program	License or certificate	Associate's program	Bachelor's program		
<b>Total</b>	<b>65.1</b>	<b>12.8</b>	<b>16.4</b>	<b>49.5</b>	<b>2.9</b>	<b>8.4</b>
Sex						
Male	59.0	12.1	15.0	44.7	2.7	13.0
Female	71.1	13.4	17.9	54.4	3.1	3.8
Race/ethnicity						
White	66.5	9.9	14.9	52.1	2.5	9.1
Black	66.1	18.6	16.6	47.5	2.3	6.8
Hispanic	60.0	13.9	19.4	42.9	2.8	7.6
Asian	70.4	14.0	14.4	63.0	5.3	4.3
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	46.7	8.8	16.3	36.0	‡	13.4
Two or more races	67.7	18.3	18.6	50.5	5.0	10.4
Race/ethnicity by sex						
Male						
White	60.4	9.9	13.1	46.9	2.5	14.4
Black	60.8	14.6	16.4	43.6	1.9	9.8
Hispanic	53.3	14.3	17.4	37.2	2.3	11.5
Asian	67.0	17.0	16.5	56.9	5.1	6.7
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	45.4	11.5 !	15.8 !	39.2	‡	13.3 !
Two or more races	62.2	14.9	17.2	49.5	5.1	16.0
Female						
White	73.0	10.0	16.8	57.6	2.6	3.5
Black	70.6	21.9	16.8	50.8	2.7	4.3
Hispanic	67.0	13.5	21.4	48.9	3.3	3.7
Asian	73.9	11.1	12.2	69.1	5.6	‡
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	48.3	‡	16.9 !	32.4 !	‡	13.5 !
Two or more races	73.1	21.6	19.9	51.6	5.0	4.9

See notes at end of table.

**Table 27-2. Percentage of 9th-graders planning different activities during their first year after high school, by sex and race/ethnicity: 2009—Continued**

Sex and race/ethnicity	Get a job	Start a family	Travel	Do volunteer or missionary work	Don't know
<b>Total</b>	<b>42.6</b>	<b>6.8</b>	<b>12.0</b>	<b>8.4</b>	<b>12.8</b>
<b>Sex</b>					
Male	43.0	7.5	10.1	5.9	13.2
Female	42.3	6.1	14.0	10.8	12.4
<b>Race/ethnicity</b>					
White	39.3	5.9	11.3	8.5	12.2
Black	46.4	7.7	11.0	7.0	10.6
Hispanic	47.3	7.8	12.3	7.8	15.2
Asian	38.9	3.6	12.6	10.6	17.3
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡
American Indian/ Alaska Native	38.2	9.3!	23.5	‡	23.6
Two or more races	47.6	9.5	16.4	10.7	10.1
<b>Race/ethnicity by sex</b>					
<b>Male</b>					
White	39.0	6.4	9.1	6.2	12.4
Black	46.3	7.7	10.9	4.4	10.6
Hispanic	48.5	9.0	9.5	4.9	16.8
Asian	38.6	4.0!	8.5	6.9	17.3
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡
American Indian/ Alaska Native	43.2	14.0!	30.8!	‡	21.8!
Two or more races	49.6	11.2	15.1	9.0	10.3
<b>Female</b>					
White	39.5	5.4	13.6	10.9	12.1
Black	46.4	7.7	11.1	9.1	10.6
Hispanic	46.1	6.5	15.1	10.8	13.6
Asian	39.2	3.3!	16.7	14.3	17.3
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡
American Indian/ Alaska Native	32.6	‡	15.6	‡	25.6!
Two or more races	45.6	7.9	17.7	12.4	10.0

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Students could select more than one activity; therefore, detail may not sum to totals. Data weighted by W1STUDENT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009, Base-Year Public-Use Data File.

# Steps Toward Postsecondary Enrollment

*In 2004, higher percentages of females than males had taken or planned to take college preparatory and/or entrance exams, such as the PSAT, ACT, and SAT.*

In 2004, some 57 percent of high school seniors had taken or planned to take the College Board PSAT and 82 percent had taken or planned to take the SAT or the ACT. Overall, a higher percentage of females than males had taken or planned to take these college preparatory (PSAT) or entrance (SAT or ACT) exams, a pattern that held for the White and Asian subgroups. In addition, a higher percentage of Hispanic females had taken or planned to take the SAT or ACT than Hispanic males (75 vs. 68 percent). No measurable differences between males and females were found for other racial/ethnic groups. Information on students' performance on ACT and SAT examinations is presented in Indicator 24.

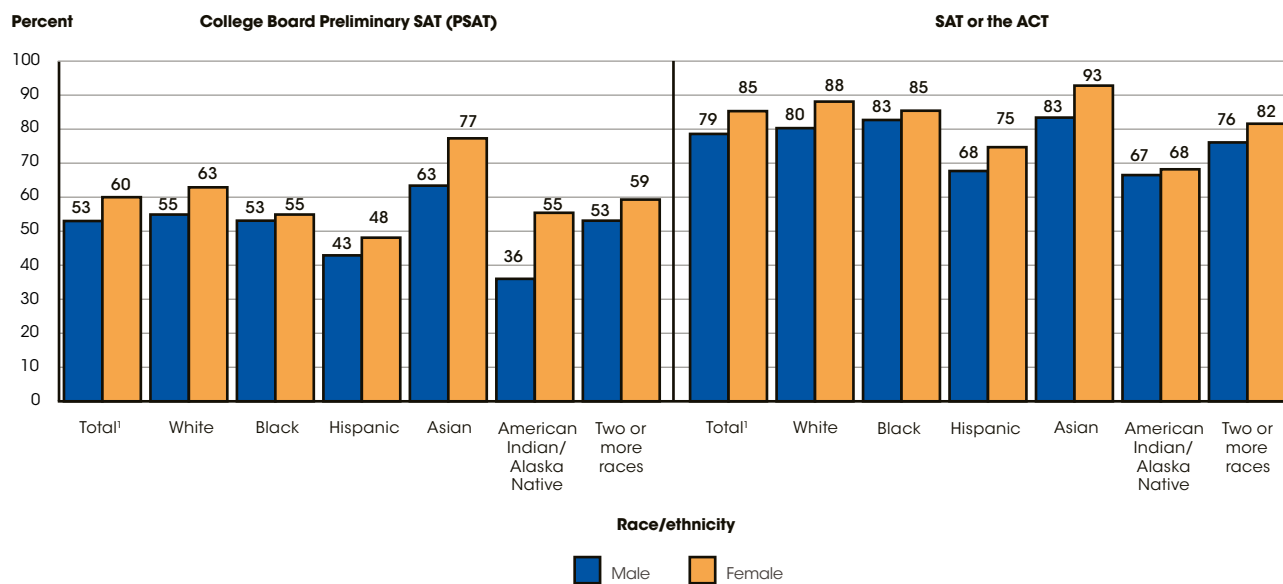
The percentage of high school seniors who had taken or planned to take college preparatory and/or entrance exams varied across racial/ethnic groups. When asked about the PSAT, a higher percentage of Asian students (70 percent) had taken or planned to take the test than all other racial/ethnic groups, with one exception: due to small sample sizes, no measurable differences were found between Asians and Native Hawaiian/Pacific Islanders. A higher percentage of White students (59 percent) than Black (54 percent), Hispanic (46 percent), or American Indian/Alaska Native students (44 percent) had taken or planned to take the PSAT. Additionally, a measurably higher

percentage of Blacks than Hispanics had taken or planned to take the PSAT.

Higher percentages of Asian students also planned to take the SAT or ACT compared with all other racial/ethnic groups, with one exception: due to small sample sizes, no measurable difference was found between Asians and Native Hawaiian/Pacific Islanders. The SAT/ACT pattern for Whites compared with other racial/ethnic groups differed from the PSAT pattern. For example, no measurable difference was found between the percentage of White and Black students who had taken or planned to take the SAT or ACT (84 percent each). Also, a higher percentage of Black students took or planned to take the SAT or ACT than Hispanic and American Indian/Alaska Native students (84 vs. 71 and 67 percent, respectively).

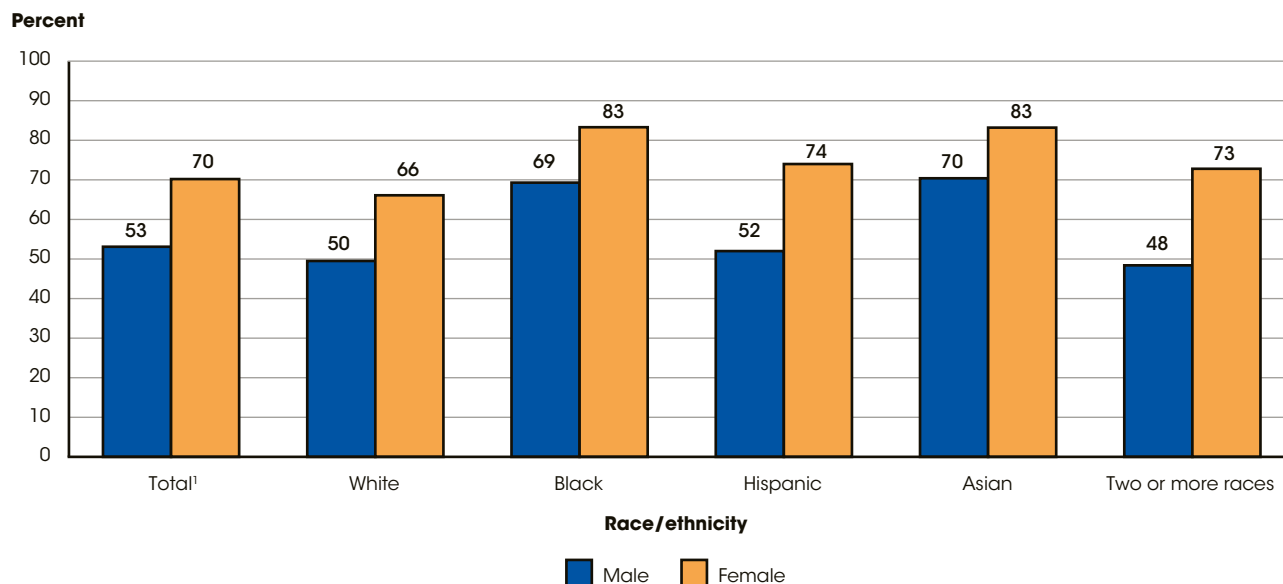
Among high school seniors in 2004 who took or planned to take the SAT or ACT, the percentages who took or planned to take various steps to prepare for these tests varied across types of preparation. Overall, these students took or planned to take a special course at high school (21 percent), a commercial SAT/ACT preparation course (14 percent), and/or private one-to-one tutoring for the SAT/ACT (11 percent). Additionally, they studied or planned to study from SAT/ACT preparation books (62 percent),

**Figure 28-1. Percentage of high school seniors who took or planned to take college entrance examinations, by race/ethnicity and sex: 2004**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiian/Pacific Islander females were not met; therefore, data for Native Hawaiian/Pacific Islander males and females are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

**Figure 28-2.** Among high school seniors who took or planned to take the SAT or the ACT, the percentage who studied or planned to study from SAT/ACT preparation books, by race/ethnicity and sex: 2004



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

and used or planned to use SAT/ACT preparation videos (4 percent) and/or SAT/ACT preparation computer programs (36 percent). Overall, higher percentages of females than males prepared or planned to prepare for the SAT/ACT using the following methods: taking commercial preparation courses, studying from preparation books, and using computer programs.

In 2004, the percentage of students who studied or planned to study using SAT/ACT preparation books—the most frequently reported preparation method—varied by sex and race/ethnicity. A higher percentage of females than males reported this method of preparation (70 vs. 53 percent), a finding which held across all racial/ethnic groups for which data are presented. The largest differences by sex were found among students of two or more races (24 percent), followed by Hispanics (22 percent), Whites (17 percent), Blacks (14 percent), and Asians (13 percent). By race/ethnicity, higher percentages of Black and Asian students (77 percent each) studied or planned to study using SAT/ACT preparation books than White students (58 percent), Hispanic students (64 percent), and students of two or more races (61 percent).

In 2004, about 93 percent of high school seniors planned to continue their education after high school. A higher percentage of females than males had postsecondary aspirations (96 vs. 90 percent). This pattern held for White, Black, Hispanic, and American Indian/Alaska Native males and females. Also concerning postsecondary aspirations, racial/ethnic differences showed that higher percentages of Blacks (95 percent) and Asians (97 percent) had postsecondary aspirations than did Hispanics (92 percent), and higher percentages of Asians (97 percent)

planned to continue their education after high school than did American Indians/Alaska Natives (87 percent).

Among high school seniors with postsecondary aspirations, 74 percent applied to at least one postsecondary institution while in high school: 22 percent applied to only one institution, 39 percent applied to two to four institutions, and 13 percent applied to five or more institutions. A higher percentage of females than males applied to at least one postsecondary institution while in high school (78 vs. 70 percent), a finding which held for White, Black, Hispanic, and Asian students with postsecondary aspirations as well. A higher percentage of Asian students applied to at least one postsecondary institution than students of other racial/ethnic groups, with one exception: due to small sample sizes, no measurable differences were found between Asian and Native Hawaiian/Pacific Islander postsecondary applications. Higher percentages of White (76 percent) and Black (74 percent) students applied to at least one postsecondary institution than Hispanic (62 percent) and American Indian/Alaska Native students (60 percent).

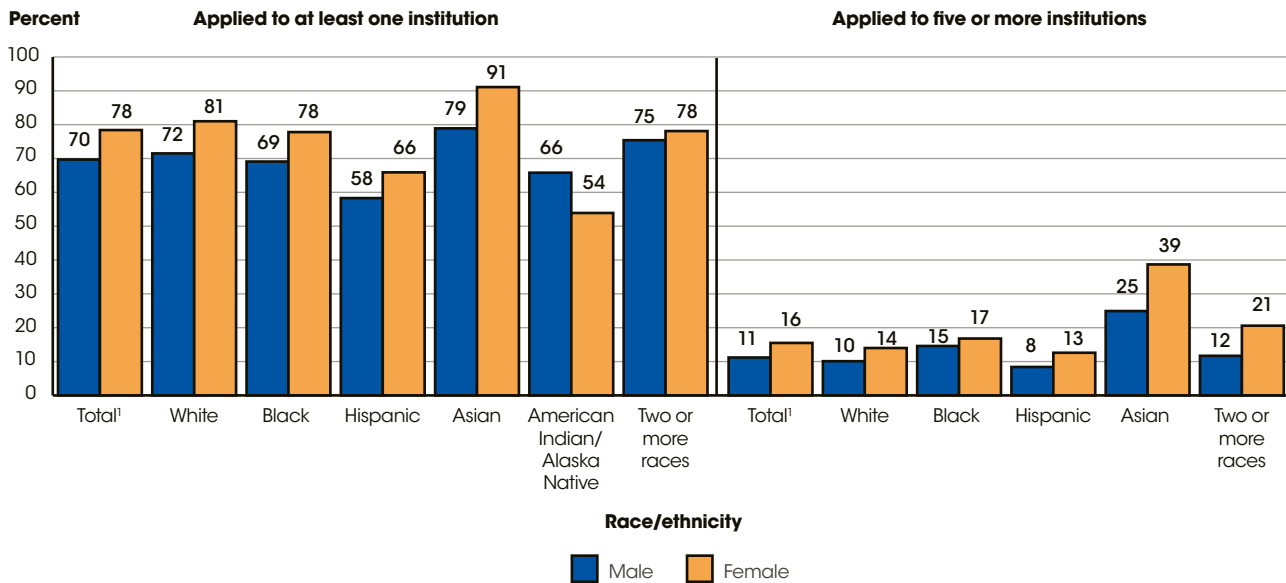
Among seniors with postsecondary aspirations, a higher percentage of females (15 percent) than males (11 percent) applied to five or more postsecondary institutions while in high school, a finding which held for White, Hispanic, and Asian students, and students of two or more races. Across racial/ethnic groups, a higher percentage of Asian students applied to five or more postsecondary institutions (32 percent) than students from other groups shown. A higher percentage of Black students applied to five or more institutions than did White and Hispanic students (16 percent vs. 12 and 11 percent, respectively).

## Technical Notes

In this indicator, “postsecondary institution” refers to 4-year colleges or universities; 2-year community colleges; or vocational, technical, or trade schools. The student questionnaire items did not differentiate between steps

students had already taken and steps they planned to take toward postsecondary education. The Education Longitudinal Study of 2002 includes students from public and private high schools.

**Figure 28-3. Among high school seniors who planned to continue their education after high school, percentage who applied to at least one and to five or more postsecondary institutions while in high school, by race/ethnicity and sex: 2004**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiian/Pacific Islander females who applied to at least one institution and who applied to five or more institutions and American Indians/Alaska Natives who applied to five or more institutions were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), “Base Year, 2002” and “First Follow-up, 2004.”

**Table 28-1. Percentage of high school seniors who took or planned to take college preparatory and/or entrance examinations, by type of examination, sex, and race/ethnicity: 2004**

Sex and race/ethnicity	College Board Preliminary SAT (PSAT)	SAT or ACT
<b>Total</b>	<b>56.5</b>	<b>81.9</b>
Sex		
Male	53.0	78.6
Female	60.0	85.3
Race/ethnicity		
White	58.9	84.2
Black	54.0	83.6
Hispanic	45.6	71.3
Asian	70.1	88.0
Native Hawaiian/Pacific Islander	56.6	72.6
American Indian/Alaska Native	43.7	67.3
Two or more races	56.3	78.9
Race/ethnicity by sex		
Male		
White	54.9	80.3
Black	53.1	82.7
Hispanic	42.9	67.7
Asian	63.4	83.4
Native Hawaiian/Pacific Islander	58.1	70.5
American Indian/Alaska Native	36.0	66.5
Two or more races	53.1	76.1
Female		
White	62.9	88.1
Black	54.9	84.5
Hispanic	48.1	74.7
Asian	77.3	92.8
Native Hawaiian/Pacific Islander	‡	‡
American Indian/Alaska Native	54.5	68.2
Two or more races	59.3	81.6

‡ Reporting standards not met (too few cases).

NOTE: Estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

**Table 28-2. Among high school seniors who took or planned to take the SAT or the ACT, percentage who took or planned to take various steps to prepare for these tests, by type of preparation, sex, and race/ethnicity: 2004**

Sex and race/ethnicity	Took or planned to take a special course at high school	Took or planned to take commercial SAT/ACT preparation course	Took or planned to take private one-to-one tutoring for SAT/ACT	Studied or planned to study from SAT/ACT preparation books	Used or planned to use SAT/ACT preparation video tape	Used or planned to use SAT/ACT preparation computer program
<b>Total</b>	<b>21.4</b>	<b>14.0</b>	<b>10.6</b>	<b>62.2</b>	<b>4.4</b>	<b>36.5</b>
Sex						
Male	21.7	12.8	9.8	53.1	4.6	32.1
Female	21.1	15.1	11.3	70.2	4.3	40.3
Race/ethnicity						
White	19.0	11.9	8.8	58.2	3.4	33.8
Black	29.2	19.2	20.0	76.6	8.1	49.1
Hispanic	24.5	15.1	10.9	64.4	7.6	37.0
Asian	25.7	28.2	10.8	76.8	1.6	37.6
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	‡	12.0 !	‡	62.5	‡	36.0
Two or more races	24.2	17.8	11.4	61.5	4.1 !	39.7
Race/ethnicity by sex						
Male						
White	19.1	11.4	7.5	49.5	3.8	29.0
Black	31.2	17.7	22.0	69.3	9.0	44.8
Hispanic	24.1	11.2	11.5	52.0	4.7	35.9
Asian	22.5	23.3	9.3	70.4	1.6 !	29.1
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	27.8	13.6	‡	48.4	4.4 !	37.7
Female						
White	18.9	12.2	10.0	66.1	3.0	38.0
Black	27.5	20.5	18.3	83.3	7.2	53.0
Hispanic	24.8	18.1	10.5	74.0	9.8	37.9
Asian	28.8	33.1	12.2	83.2	1.6 !	46.1
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	21.2	21.3	15.3	72.8	3.8 !	41.3

! Interpret data with caution. The coefficient of variation (CV) for this estimate exceeds 30 percent.

‡ Reporting standards not met (too few cases).

NOTE: Estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."



**Table 28-3. Among high school seniors who planned to continue their education after high school, percentage who applied to one or more postsecondary institutions while in high school, by sex and race/ethnicity: 2004**

Sex and race/ethnicity	Seniors who planned to continue their education after high school	Seniors who applied to			
		At least one institution	One institution only	Two to four institutions	Five or more institutions
<b>Total</b>	<b>93.1</b>	<b>74.2</b>	<b>22.1</b>	<b>38.7</b>	<b>13.4</b>
<b>Sex</b>					
Male	90.2	69.7	21.3	37.2	11.2
Female	95.9	78.4	22.8	40.2	15.5
<b>Race/ethnicity</b>					
White	93.1	76.4	25.0	39.3	12.1
Black	94.6	73.6	15.2	42.7	15.8
Hispanic	91.5	62.4	19.2	32.5	10.6
Asian	97.1	84.9	15.9	37.5	31.5
Native Hawaiian/Pacific Islander	94.6	63.6	12.6 †	34.6 †	‡
American Indian/Alaska Native	87.4	60.4	13.0 †	34.4	‡
Two or more races	90.7	76.8	19.4	41.1	16.4
<b>Race/ethnicity by sex</b>					
<b>Male</b>					
White	90.2	71.5	24.5	36.9	10.1
Black	92.9	69.1	13.2	41.2	14.6
Hispanic	87.7	58.3	16.7	33.3	8.4
Asian	96.0	78.9	16.5	37.9	24.5
Native Hawaiian/Pacific Islander	97.1	53.2 †	‡	28.9 †	‡
American Indian/Alaska Native	81.4	65.8	16.6 †	38.7	‡
Two or more races	87.4	75.4	21.7	41.9	11.7
<b>Female</b>					
White	96.0	81.0	25.4	41.7	14.0
Black	96.3	77.8	17.0	44.0	16.8
Hispanic	95.0	65.9	21.4	31.9	12.6
Asian	98.3	91.1	15.4	37.0	38.7
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	95.8	53.9	‡	29.1	‡
Two or more races	93.9	78.1	17.2	40.3	20.6

! Interpret data with caution. The coefficient of variation (CV) for this estimate exceeds 30 percent.

‡ Reporting standards not met (too few cases).

NOTE: Estimates for percentage of students who planned to continue their education after high school were weighted by F1PNLWT, and the remaining estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

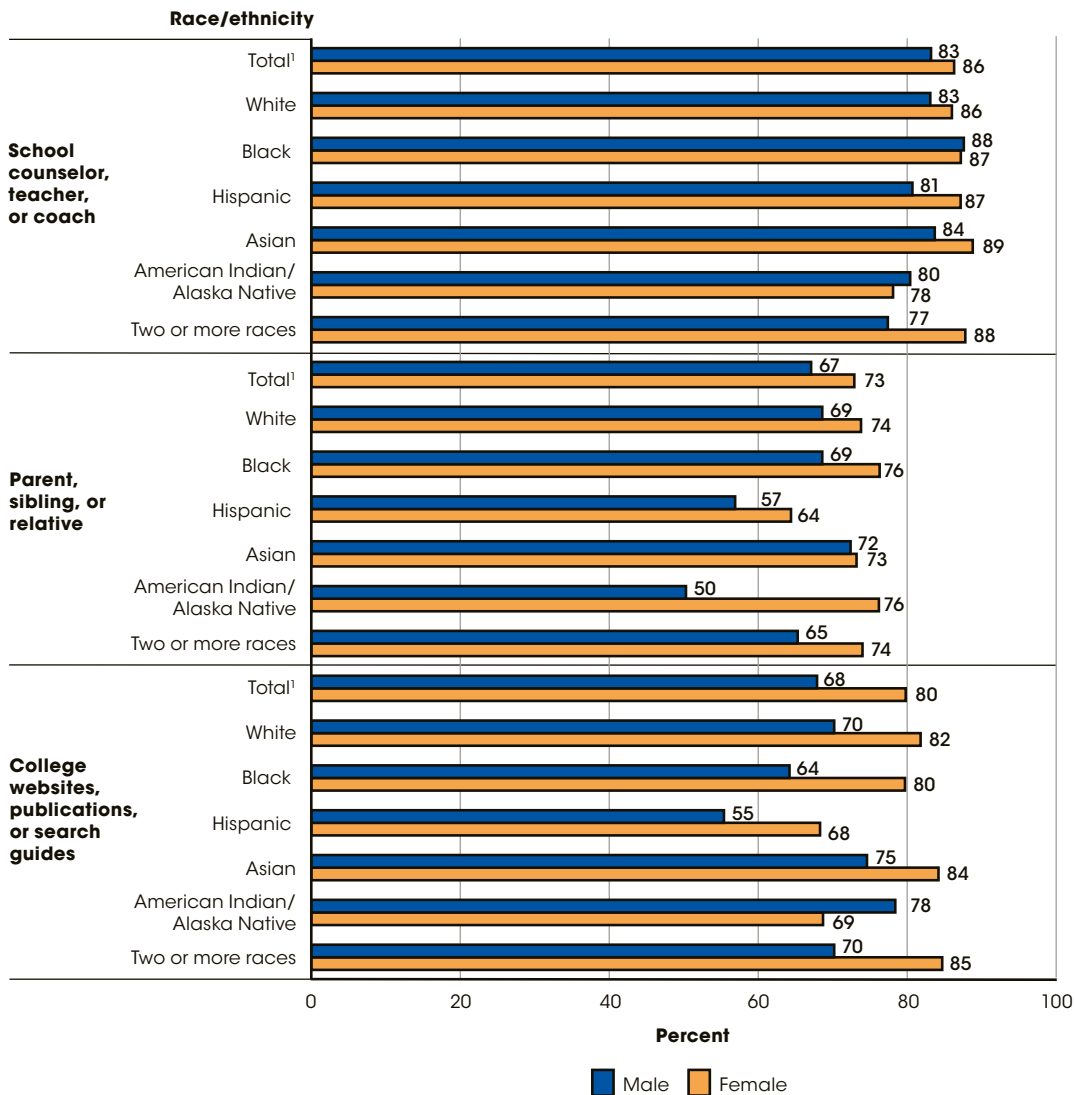
## Indicator 29 Informational Resources

In 2004, the percentage of high school seniors with postsecondary aspirations who consulted college websites, publications, or search guides for information on college entrance requirements was higher for females than males (80 vs. 68 percent).

In 2004, some 93 percent of high school seniors had postsecondary aspirations. Of these, 85 percent consulted a school counselor, teacher, or coach for information on college entrance requirements. Other informational resources that seniors consulted included parents, siblings,

or relatives (70 percent), friends (52 percent), college websites, publications, or search guides (74 percent), college representatives (59 percent), and school libraries, public libraries, or college libraries (20 percent). Three percent of seniors with plans to continue their education

**Figure 29-1.** Among high school seniors who planned to continue their education after high school, percentage who used informational resources on college entrance requirements, by selected types of informational resources, race/ethnicity, and sex: 2004



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base year, 2002" and "First Follow-up, 2004."

did not consult any of these resources for information on college entrance requirements.

Overall, among high school seniors with postsecondary aspirations, a higher percentage of females than males went to a high school counselor, teacher, or coach for information on college entrance requirements (86 vs. 83 percent). Across racial/ethnic groups, a higher percentage of Native Hawaiian/Pacific Islander seniors reported going to high school staff for college entrance information than did Whites, Hispanics, and those of two or more races (94 percent vs. 85, 84, and 83 percent, respectively).

Among high school seniors with postsecondary aspirations, a higher percentage of females than males consulted college websites, publications, or search guides for information on college entrance requirements (80 vs. 68 percent). This pattern held for Whites (82 vs. 70 percent), Blacks (80 vs. 64 percent), Hispanics (68 vs. 55 percent), Asians (84 vs. 75 percent), and those of two or more races (85 vs. 70 percent).

An examination of overall racial/ethnic group differences for college websites, publications, or search guides shows that a lower percentage of Native Hawaiians/Pacific Islanders consulted these resources than any other racial/ethnic group, with the exception of Hispanic students. Additionally, higher percentages of Whites (76 percent), Blacks (73 percent), Asians (79 percent), and those of two or more races (78 percent) consulted these resources than did Hispanics (63 percent).

In 2004, a higher percentage of females than males consulted college representatives for information about college entrance requirements (62 vs. 55 percent). This pattern was also found for White and Hispanic males and females. Overall, a lower percentage of Hispanic students went to college representatives for information on college entrance requirements than did White, Black, and Asian students (53 percent vs. 59, 62, and 63 percent, respectively).

**Table 29-1. Percentage of high school seniors who planned to continue their education after high school and, among seniors who planned to continue, the percentage who used informational resources on college entrance requirements, by type of informational resource, sex, and race/ethnicity: 2004**

Sex and race/ethnicity	Seniors who planned to continue their education after high school	Type of informational resource						
		School counselor, teacher, or coach	Parent, sibling, or relative	Friend	College websites, publications, or search guides	College representatives	School, public, or college library	None of these sources
<b>Total</b>	<b>93.1</b>	<b>84.8</b>	<b>70.1</b>	<b>52.4</b>	<b>74.1</b>	<b>58.7</b>	<b>19.9</b>	<b>2.8</b>
Sex								
Male	90.2	83.2	67.1	48.1	67.9	55.4	18.5	4.5
Female	95.9	86.3	72.9	56.2	79.8	61.8	21.1	1.3
Race/ethnicity								
White	93.1	84.6	71.3	51.1	76.2	59.0	18.0	3.0
Black	94.6	87.4	72.7	53.8	72.5	62.3	30.2	2.0!
Hispanic	91.5	83.9	61.1	50.4	62.6	53.4	19.1	3.5
Asian	97.1	86.2	72.8	72.3	79.3	62.9	17.9	‡
Native Hawaiian/ Pacific Islander	94.6	93.5	74.0	55.4	39.1!	52.2	‡	#
American Indian/ Alaska Native	87.4	79.3	62.2	42.7	73.9	60.1	33.4	‡
Two or more races	90.7	82.8	69.8	56.9	77.7	56.8	21.1	2.7!
Race/ethnicity by sex								
Male								
White	90.2	83.1	68.6	46.5	70.2	56.2	16.6	4.7
Black	92.9	87.6	68.6	52.2	64.2	59.2	29.2	2.7!
Hispanic	87.7	80.7	56.9	44.8	55.4	46.8	17.8	6.4
Asian	96.0	83.7	72.4	69.9	74.6	59.5	16.1	‡
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	81.4	80.4	50.3	29.8!	78.4	58.0	35.8!	‡
Two or more races	87.4	77.4	65.3	53.4	70.2	51.5	19.2	‡
Female								
White	96.0	86.0	73.8	55.4	81.8	61.5	19.3	1.3
Black	96.3	87.2	76.3	55.2	79.7	64.9	31.1	‡
Hispanic	95.0	86.5	64.4	54.9	68.3	58.7	20.1	1.2!
Asian	98.3	88.8	73.2	74.9	84.2	66.5	19.8	‡
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	95.8	78.1	76.2	58.0	68.7	62.6	30.6!	#
Two or more races	93.9	87.8	74.0	60.2	84.7	61.8	22.9	‡

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Estimates for percentage of students who planned to continue their education after high school were weighted by F1PNLWT, and the remaining estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base year, 2002" and "First Follow-up, 2004."

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# Postsecondary School Choice Factors

*In 2004, among high school seniors with plans to continue their education, higher percentages of females than males reported the availability of courses, low expenses, the availability of financial aid, and the academic reputation of a postsecondary institution as very important factors in their school selection process.*

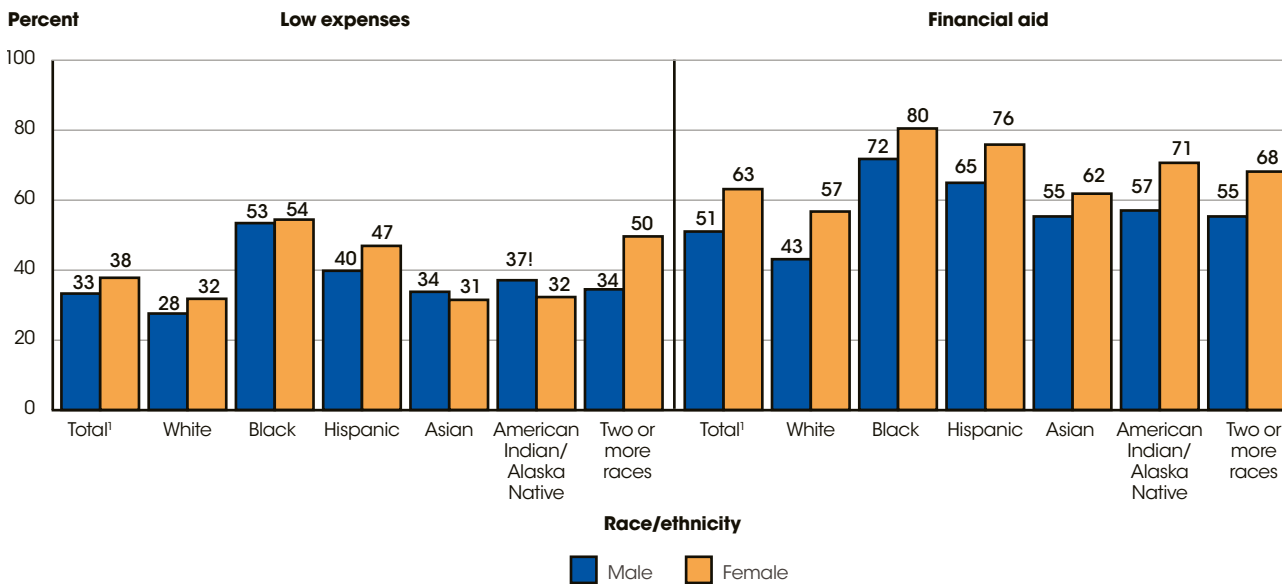
In 2004, among the 93 percent of high school seniors with postsecondary aspirations, 67 percent reported that the availability of courses was very important to them when selecting an educational institution. Seniors with postsecondary aspirations also reported the following postsecondary characteristics as very important: low expenses (36 percent), the availability of financial aid (57 percent), academic reputation (58 percent), athletic program (15 percent), active social life (30 percent), easy admission (23 percent), and racial/ethnic makeup (14 percent). Higher percentages of females than males considered low expenses, the availability of financial aid, and academic reputation to be very important to their school choice. The reverse was observed (higher percentages of males than females) regarding the importance of an institution's athletic programs and social life.

Concerning the availability of courses, 62 percent of males reported this factor as very important to their selection of a postsecondary institution, compared to 71 percent of females. Differences between males and females were

also found within some racial/ethnic groups, specifically, Whites, Blacks, and Hispanics. For example, 69 percent of Black males considered the availability of courses to be a very important school selection factor, compared to 79 percent of Black females. No measurable differences between males and females were found for Asians, American Indians/Alaska Natives, and those of two or more races. Overall, the percentage of Black seniors reporting the availability of courses as very important (74 percent) was higher than the percentages of White, Hispanic, and Asian seniors (65 percent each).

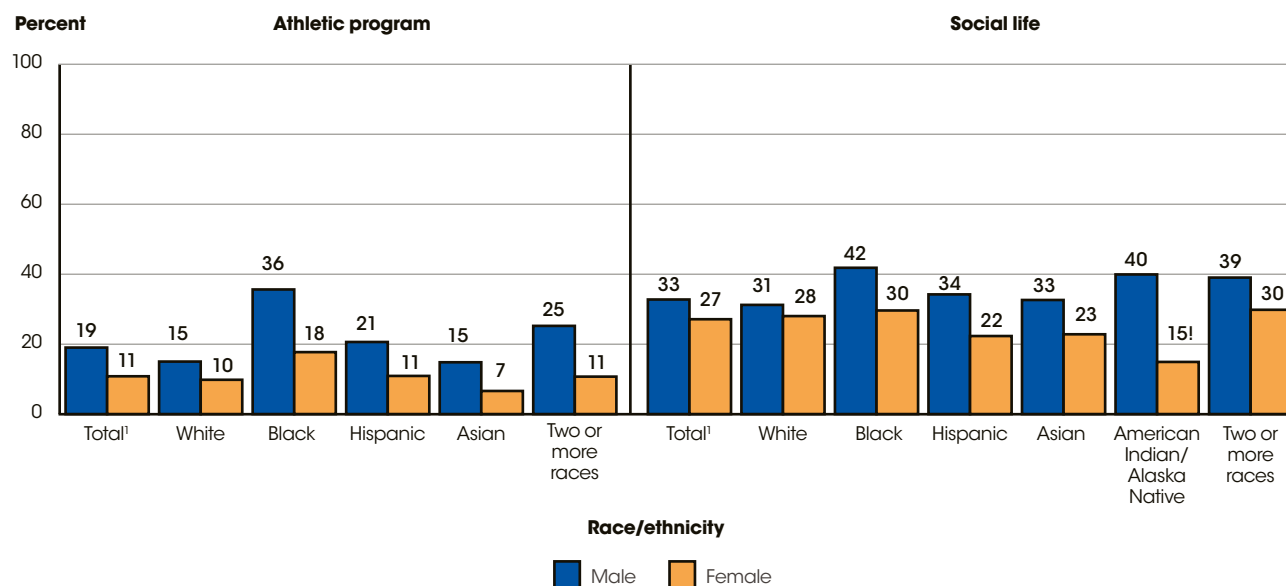
Low expenses were reported as a very important factor in the choice of postsecondary institutions by 33 percent of males, compared to 38 percent of females. Differences between males and females were also found for Whites (27 vs. 32 percent), Hispanics (40 vs. 47 percent), and students of two or more races (34 vs. 49 percent). Across racial/ethnic groups, a higher percentage of Blacks reported low expenses as very important than did Whites, Hispanics, Asians, American Indians/Alaska Natives, and those of two or more races. Additionally, a higher

**Figure 30-1. Percentage of high school seniors with postsecondary aspirations who reported low postsecondary school expenses and the availability of financial aid as very important to their decisions, by race/ethnicity and sex: 2004**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.  
<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
 NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiian/Pacific Islander females were not met; therefore, data for Native Hawaiian/Pacific Islander males and females are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

**Figure 30-2. Percentage of high school seniors with postsecondary aspirations who reported postsecondary institution's athletic program and active social life as very important, by race/ethnicity and sex: 2004**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F1QWT. Reporting standards for American Indian/Alaska Native females and for Native Hawaiians/Pacific Islanders who reported athletic programs as very important were not met; therefore, data for American Indian/Alaska Native and Native Hawaiian/Pacific Islander males and females are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

percentage of Hispanic high school seniors than White and Asian high school seniors reported this factor as very important (44 percent vs. 30 and 33 percent, respectively).

The availability of financial aid also varied in importance by sex and race/ethnicity. Overall, a higher percentage of females (63 percent) than males (51 percent) reported this factor as very important in 2004. Within racial/ethnic groups, a similar pattern was found for Whites (57 vs. 43 percent), Blacks (80 vs. 72 percent), Hispanics (76 vs. 65 percent), and those of two or more races (68 vs. 55 percent). Differences across racial/ethnic groups include a higher percentage of Blacks than seniors in all other racial/ethnic groups reporting the availability of financial aid as very important, as well as a higher percentage of Hispanics than Whites, Asians, Native Hawaiians/Pacific Islanders, and those of two or more races.

Academic reputation was also among the factors that a higher percentage of females than males (63 vs. 52 percent) reported as very important in the choice of a postsecondary institution in 2004. A similar pattern was found for Whites (63 vs. 49 percent), Blacks (72 vs. 60 percent), and Asians (72 vs. 62 percent). Across racial/ethnic groups, higher percentages of both Blacks and Asians cited an institution's academic reputation as a very important factor than did Whites, Hispanics, and those of two or more races.

A higher percentage of males than females rated other school choice factors as very important in their selection

of postsecondary institutions. For example, among seniors with postsecondary aspirations, 15 percent thought an institution's athletic program was very important and 30 percent thought an institution's social life was very important. However, higher percentages of males than females reported athletic programs (19 vs. 11 percent) and social life (33 vs. 27 percent) as very important. A similar pattern was found for Whites, Blacks, Hispanics, Asians, and those of two or more races for an institution's athletic programs and for Whites, Blacks, Hispanics, Asians, and American Indians/Alaska Natives for its social life.

Differences were also found across racial/ethnic groups for an institution's athletic programs and social life. A higher percentage of Blacks (26 percent) reported athletic programs as a very important factor than did Whites (12 percent), Hispanics (15 percent), Asians (11 percent), and those of two or more races (17 percent). The percentage of Hispanic seniors who reported this factor as very important was also higher than the percentages of Whites and Asians. Similarly, a higher percentage of Blacks (35 percent) reported an institution's social life as a very important factor than did Whites (30 percent), Hispanics (28 percent), and Asians (28 percent).

Two other postsecondary school choice factors—easy admission and racial/ethnic makeup—were reported as very important by 23 percent and 14 percent, respectively, of seniors with college aspirations. Although no significant differences were found between males and females overall or between males and females within each racial/ethnic group, differences were observed across race/ethnicity.

For example, a lower percentage of Whites (17 percent) reported easy admission as a very important factor than did Blacks (41 percent), Hispanics (31 percent), Asians (21 percent), and those of two or more races (27 percent). In addition, the percentage of Blacks reporting easy admission as very important was higher than that of Hispanics, Asians, and those of two or more races, and the percentage of Hispanics reporting it as very important was higher than that of Asians. Concerning

an institution's racial/ethnic makeup, a lower percentage of Whites (8 percent) reported this factor as very important than did Blacks (31 percent), Hispanics (19 percent), Asians (19 percent), and those of two or more races (20 percent). In addition, the percentage of Blacks who reported racial/ethnic makeup as very important was higher than the percentages of students of all other races/ethnicities.



**Table 30-1. Percentage of high school seniors with postsecondary aspirations who reported select school choice factors as very important, by school choice factor, sex, and race/ethnicity: 2004**

Sex and race/ethnicity	Seniors who planned to continue their education after high school	Select school choice factors among seniors with postsecondary aspirations							
		Availability of courses	Low expenses	Financial aid	Reputation of institution	Athletic program	Active social life	Easy admission	Racial/ethnic makeup
<b>Total</b>	<b>93.1</b>	<b>66.6</b>	<b>35.6</b>	<b>57.4</b>	<b>57.9</b>	<b>14.8</b>	<b>30.1</b>	<b>22.9</b>	<b>13.9</b>
Sex									
Male	90.2	62.5	33.2	50.9	51.9	19.0	33.5	22.8	13.8
Female	95.9	70.5	37.7	63.5	63.4	10.8	27.1	22.9	14.0
Race/ethnicity									
White	93.1	65.2	29.6	50.0	56.4	12.3	29.5	17.1	8.4
Black	94.6	74.4	53.8	76.2	66.4	26.2	35.4	40.8	31.1
Hispanic	91.5	65.5	43.6	70.7	53.6	15.3	27.7	30.7	18.7
Asian	97.1	65.1	32.6	58.4	67.0	10.7	27.7	20.7	19.1
Native Hawaiian/ Pacific Islander	94.6	68.9	39.7	46.1	54.1	‡	28.9!	‡	‡
American Indian/ Alaska Native	87.4	66.9	34.7	63.1	62.8	19.0!	28.6	27.2	15.2!
Two or more races	90.7	69.0	42.3	62.0	57.3	17.5	34.1	27.1	19.8
Race/ethnicity by sex									
Male									
White	90.2	60.7	27.5	43.0	49.4	15.0	31.2	16.8	8.0
Black	92.9	69.0	53.3	71.6	60.0	35.6	41.8	41.1	33.5
Hispanic	87.7	61.9	39.7	64.8	50.4	20.6	34.2	30.8	19.0
Asian	96.0	63.3	33.7	55.2	62.3	14.8	32.6	21.3	18.0
Native Hawaiian/ Pacific Islander	97.1	75.2	35.1!	41.5!	55.9	‡	‡	‡	‡
American Indian/ Alaska Native	81.4	68.2	37.0!	56.9	63.4	31.7	39.9	36.0	13.9!
Two or more races	87.4	67.0	34.4	55.2	55.0	25.2	39.0	31.9	19.8
Female									
White	96.0	69.4	31.7	56.6	62.9	9.8	28.0	17.5	8.8
Black	96.3	79.4	54.3	80.3	72.3	17.7	29.6	40.6	28.9
Hispanic	95.0	68.5	46.8	75.7	56.3	10.9	22.3	30.7	18.4
Asian	98.3	67.1	31.4	61.7	71.7	6.6	22.8	20.2	20.2
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	95.8	65.5	32.2	70.5	62.0	‡	14.9!	16.2!	16.7!
Two or more races	93.9	70.8	49.5	68.0	59.3	10.7	29.8	22.9	19.9

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Estimates for percentage of students who planned to continue their education after high school were weighted by F1PNLWT, and the remaining estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "Base Year, 2002" and "First Follow-up, 2004."

## Indicator 31 Financial Aid Considerations

Among 2004 high school seniors, there were differences by race/ethnicity and sex in the percentages of students who had applied for college admission and financial aid by 2006. A higher percentage of females than males had applied to college (87 vs. 79 percent), and a higher percentage of Black college applicants had applied for financial aid than Whites, Hispanics, and those of two or more races.

By 2006, some 83 percent of students who were high school seniors in 2004 had applied to college. A lower percentage of males applied to college than females (79 vs. 87 percent)—a pattern that held for Whites (81 vs. 88 percent), Blacks (77 vs. 85 percent), and Hispanics (73 vs. 82 percent). Racial/ethnic differences were also found overall. For example, a lower percentage of Blacks (81 percent) and Hispanics (78 percent) had applied to college by 2006 than Whites (85 percent), Asians (91 percent), and Native Hawaiians/Pacific Islanders (91 percent).

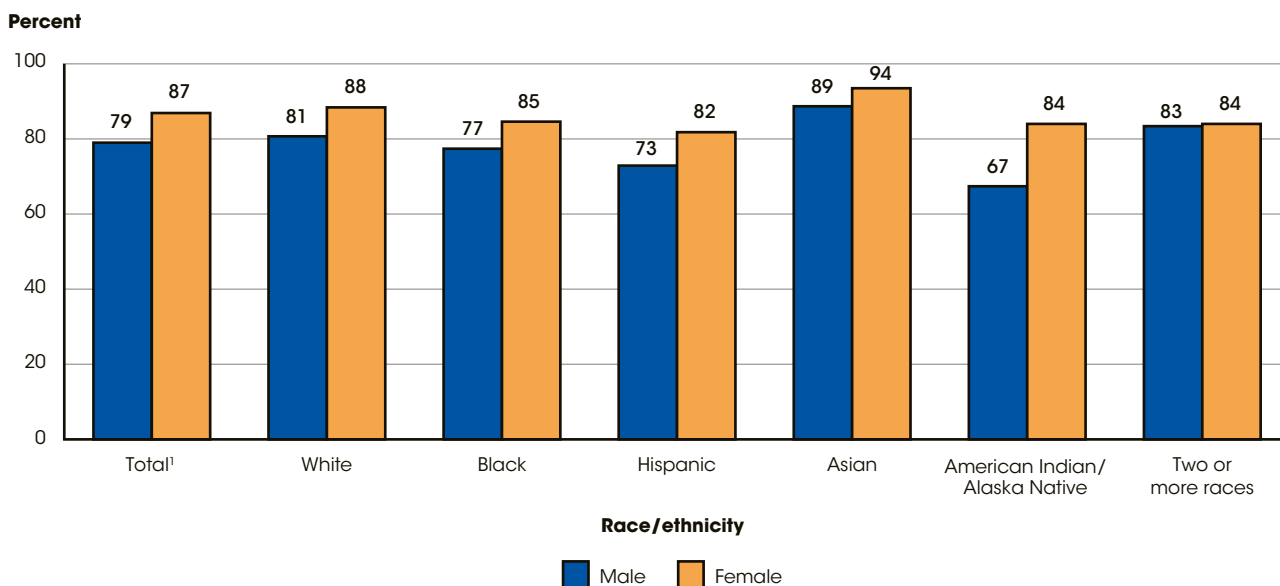
Among these college applicants, 73 percent had also applied for financial aid by 2006, with a lower percentage of male than female aid applicants (69 vs. 76 percent). Similarly, there was a lower percentage of male than female aid applicants among Whites (68 vs. 76 percent), Blacks (77 vs. 84 percent), Asians (72 vs. 80 percent), and American Indians/Alaska Natives (46 vs. 83 percent). No measurable differences were found between Hispanic males and females or between males and females of two or more races. Overall racial/ethnic group differences were

also found. For example, a higher percentage of Blacks (81 percent) applied for aid than did Whites (72 percent), Hispanics (70 percent), or those of two or more races (72 percent).

College applicants who did not apply for financial aid cited various reasons for not doing so, including the ability to pay for education without financial aid (55 percent), the perception that they would not qualify for aid (40 percent), being offered aid without applying (11 percent), the difficulty of the aid application process (10 percent), an inability to repay loans (9 percent), a desire not to report financial information (5 percent), and other reasons (24 percent).

Among male and female college applicants who did not apply for financial aid, no measurable difference was found between the percentages of males and females who reported not applying for aid because of an inability to repay loans. While similar percentages were also observed for males and females of various racial/ethnic groups, overall differences by race/ethnicity were found.

**Figure 31-1. Percentage of 2004 high school seniors who had applied to college by 2006, by race/ethnicity and sex: 2006**

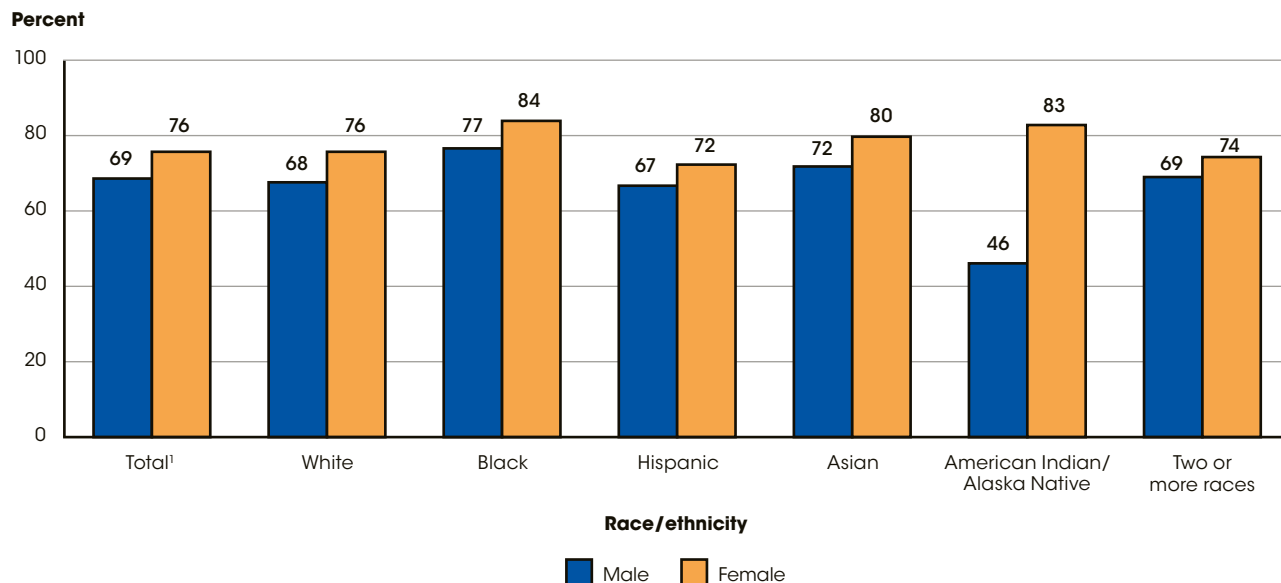


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F2F1WT. Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

**Figure 31-2. Among 2004 high school seniors who had applied to college by 2006, percentage who applied for financial aid, by race/ethnicity and sex: 2006**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F2F1WT. Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

For example, the percentage of White college applicants citing an inability to repay loans as a reason for not applying for aid was lower than the percentages of Blacks and Hispanics citing this reason (6 percent vs. 18 and 19 percent). In addition, compared with Blacks, higher

percentages of Whites and Asians did not apply for financial aid because they thought they would not qualify for aid and because they did not need aid to pay for their college education.

**Table 31-1. Among 2004 high school seniors who had applied to college by 2006, percentage who applied for financial aid, and among those who did not apply, percentage who reported various reasons for not doing so, by sex and race/ethnicity: 2006**

Sex and race/ethnicity	Among high school seniors, the percent who applied to college by 2006	Among college applicants, the percent who applied for financial aid by 2006	Reasons for not applying for financial aid		
			I or my family were able to pay for education without financial aid	I or my family thought that I would not qualify for aid	I was offered aid without applying
<b>Total</b>	<b>83.3</b>	<b>72.8</b>	<b>55.3</b>	<b>40.5</b>	<b>11.5</b>
Sex					
Male	79.5	68.6	57.3	36.6	12.7
Female	86.9	76.5	52.9	45.1	10.1
Race/ethnicity					
White	84.6	71.9	62.7	42.1	10.4
Black	81.2	80.6	37.3	31.0	17.2
Hispanic	77.5	69.8	35.8	39.8	11.8
Asian	91.0	75.8	58.8	49.6	10.7
Native Hawaiian/Pacific Islander	90.9	57.3	‡	‡	‡
American Indian/Alaska Native	75.2	65.4	‡	‡	‡
Two or more races	83.7	71.7	51.4	32.1	11.0 !
Race/ethnicity by sex					
Male					
White	80.7	67.6	64.9	38.1	10.7
Black	77.4	76.6	39.5	35.2	24.7
Hispanic	72.9	66.7	38.0	31.1	13.8
Asian	88.7	71.8	59.7	47.9	12.3 !
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	67.4	46.1	‡	‡	‡
Two or more races	83.4	69.0	48.4	24.8 !	‡
Female					
White	88.4	75.7	60.2	46.8	10.1
Black	84.6	83.9	34.8	26.1	8.3 !
Hispanic	81.8	72.3	33.5	48.5	9.7
Asian	93.5	79.7	57.5	52.0	8.4 !
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡
American Indian/Alaska Native	84.0	82.8	‡	‡	‡
Two or more races	84.0	74.3	54.8	40.5	13.5 !

See notes at end of table.

**Table 31-1. Among 2004 high school seniors who had applied to college by 2006, percentage who applied for financial aid, and among those who did not apply, percentage who reported various reasons for not doing so, by sex and race/ethnicity: 2006—Continued**

Sex and race/ethnicity	Reasons for not applying for financial aid			
	The aid application process was too difficult	I or my family could not afford to pay back a loan	I or my family did not want to report financial information	Other reason
<b>Total</b>	<b>10.3</b>	<b>9.0</b>	<b>4.8</b>	<b>24.4</b>
Sex				
Male	10.7	8.2	4.4	25.4
Female	9.8	9.9	5.3	23.1
Race/ethnicity				
White	9.1	5.6	4.1	20.6
Black	10.5	17.5	4.9!	34.0
Hispanic	14.0	18.7	7.1	34.2
Asian	14.8	5.7	9.6	23.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	12.0!	9.3!	‡	27.9
Race/ethnicity by sex				
Male				
White	9.5	5.3	4.0	21.7
Black	9.9!	17.3	4.5!	32.5
Hispanic	16.2	16.2	3.9!	36.1
Asian	13.8	7.1!	12.1	26.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	10.5!	‡	‡	32.4
Female				
White	8.6	6.0	4.2	19.3
Black	11.2!	17.8	‡	35.7
Hispanic	11.7	21.1	10.2	32.2
Asian	16.2	‡	6.2!	19.0
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡
Two or more races	‡	13.6!	‡	22.6!

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Estimates were weighted by F2F1WT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

## Indicator 32

# Participation in College Preparatory and Awareness Programs

*In 2004, among high school seniors with postsecondary aspirations, there was no significant difference in participation between males and females in college preparatory and awareness programs, a finding which held for all racial/ethnic groups.*

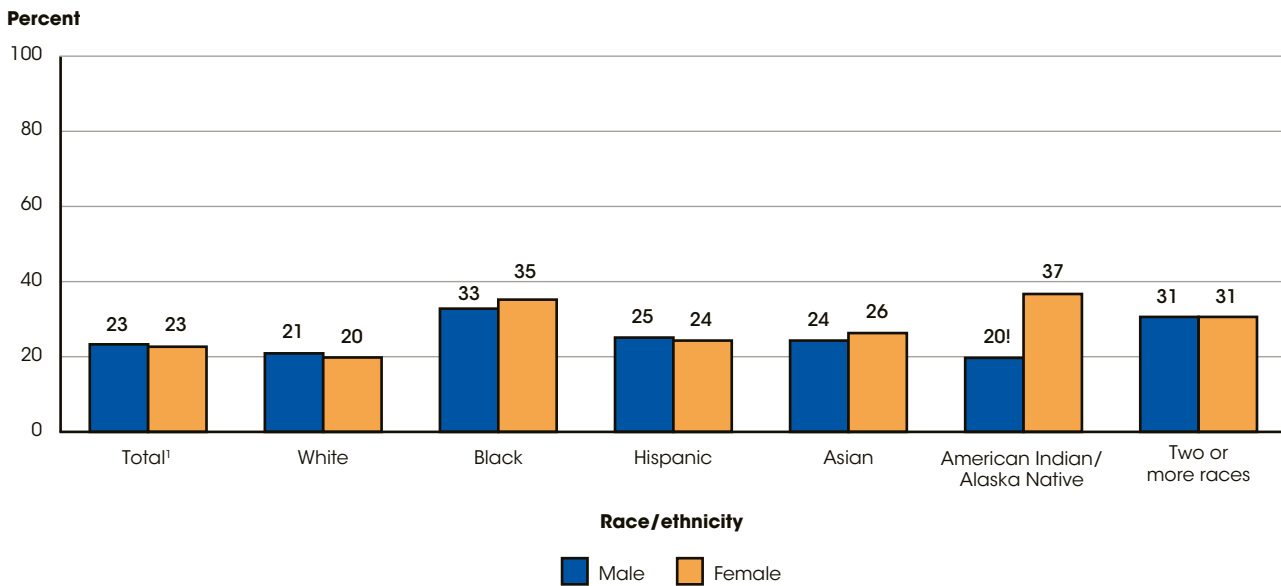
A number of college preparatory and awareness programs exist throughout the country to provide information to secondary school students about postsecondary education opportunities. Activities and services that these programs provide can include career exploration and aptitude assessment, exposure to college campuses, information on student financial assistance, assistance in completing college admissions and financial aid applications, assistance in preparing for college entrance exams, and mentoring programs.

In 2004, some 23 percent of seniors with postsecondary aspirations reported participating in programs to help

prepare for college. Overall, there were no significant differences between the percentages for males and females (23 percent each), a pattern which held for all racial/ethnic groups.

However, a higher percentage of Black students (34 percent) reported participating in these programs than did White (20 percent), Hispanic (25 percent), and Asian students (25 percent), with the same pattern found among male and female students. Additionally, among female students, a lower percentage of Whites participated than did Asians and those of two or more races (20 vs. 26 and 31 percent, respectively).

**Figure 32-1.** Among high school seniors with postsecondary aspirations, the percentage who reported participating in college preparatory and awareness programs, by race/ethnicity and sex: 2004



<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate exceeds 30 percent.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates were weighted by F1QWT. Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "First Follow-up, 2004."

**Table 32-1. Among high school seniors with postsecondary aspirations, the percentage who reported participating in college preparatory and awareness programs, by race/ethnicity and sex: 2004**

Sex	Total	White	Black	Hispanic	Asian	Native Hawaiian/ Pacific Islander	American Indian/ Alaska Native	Two or more races
<b>Total</b>	<b>23.4</b>	<b>20.4</b>	<b>34.0</b>	<b>24.7</b>	<b>25.3</b>	<b>29.8 !</b>	<b>27.5</b>	<b>30.6</b>
Sex								
Male	23.5	20.9	32.8	25.1	24.3	‡	19.7 !	30.6
Female	23.3	19.8	35.2	24.3	26.3	‡	36.7	30.6

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

NOTE: Estimates were weighted by F1QWT. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2004), "First Follow-up, 2004."



# Chapter 6

## Postsecondary Education

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Chapter 6 investigates male and female differences (across and within racial/ethnic groups) on a variety of postsecondary enrollment, persistence, and attainment indicators. These measures include pathways to postsecondary education, price of attendance and financial aid, enrollment intensity, reasons for leaving without completing a degree or certificate program, remedial coursetaking, academic and social integration, and college student employment.

Lower rates of persistence and attainment have been associated with a number of precollegiate and collegiate factors (NCES 2008). For example, Pascarella and Terenzini (2005) discuss a consistent finding in the literature that delayed entry into postsecondary education after high school is associated with lower likelihoods of college persistence and degree attainment. Another study by NCES lists delayed entry as one of the seven major risk factors for college persistence and attainment (Berkner, Cuccaro-Alamin, and McCormick 1996). Other factors associated with lower student persistence include weak academic preparation for college, part-time enrollment and interruptions in enrollment continuity, low levels of interaction with faculty and little participation in school activities, working more than 15 hours a week while enrolled, and beginning at a 2-year community college instead of a 4-year institution. Studies that show some of these associations include Whitaker and Pascarella (1994), which examined degree attainment 14 years after graduating from high school. They found that first attending a 2-year postsecondary institution was negatively associated with degree attainment, after controlling for precollege differences in student background characteristics (e.g., gender, race/ethnicity, age, socioeconomic status, high school achievement, and involvement in extracurricular activities). Studies on *stopping out* (temporarily interrupting enrollment) have shown students with interruptions in enrollment intensity take longer to complete a degree program and that stopping out is associated with a reduced likelihood of degree completion (Ganderton and Santos 1995; Horn 1998; also see Pascarella and Terenzini 2005 for a comprehensive review of the research on positive and negative associations between student characteristics and college persistence and attainment).

Other factors that have been associated with postsecondary persistence and degree attainment include price of attendance, financial aid, and remedial coursetaking. For example, Wei and Horn (2009) showed that being a Pell Grant<sup>5</sup> recipient was associated with a shorter time to degree than being a nonrecipient, after controlling for several related variables simultaneously (e.g., parent's education, undergraduate risk characteristics, and type of institution). Regarding remedial coursework, findings have been mixed. For example, studies examining the experiences of a national cohort of 12th-graders as they transitioned to postsecondary institutions in 1992 found that taking remedial courses was related to lower likelihoods of earning a postsecondary degree or completing a certificate program (NCES 2003; Adelman 2004). However, other studies show that remediation programs may help increase the likelihood of persistence over the long term (2 to 6 years) and degree attainment as well (Braley and Ogden 1997; Weissman et al. 1997).

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<sup>5</sup> The Pell Grant program is the largest federal need-based grant program available to undergraduate students. In order to qualify for a Pell Grant, a student must demonstrate financial need.

# Enrollment Rates for 18- to 24-Year-Olds

*In 2010, a lower percentage of 18- to 24-year-old males than females were enrolled in college or graduate school (39 vs. 47 percent). A higher percentage of 18- to 24-year-old males than females were still enrolled in high school in 2010 (10 vs. 8 percent).*

In 2010, some 9 percent of 18- to 24-year-olds were still enrolled in high school, 43 percent were enrolled in college or graduate school, and another 7 percent had completed an associate's, bachelor's, or higher degree and were no longer enrolled. In the same year, about 10 percent of 18- to 24-year-olds were not currently enrolled in school and had not earned a high school credential (either a diploma or an equivalency credential such as a General Educational Development [GED] certificate).

A higher percentage of male than female 18- to 24-year-olds were still enrolled in high school in 2010 (10 vs. 8 percent). This pattern was also observed for Whites (9 vs. 7 percent), Blacks (13 vs. 10 percent), Asians (7 vs. 6 percent), Native Hawaiians/Pacific Islanders (10 vs. 4 percent), and persons of two or more races (12 vs. 9 percent). Overall, higher percentages of Black (12 percent), American Indian (10 percent), and Hispanic (10 percent) young adults and young adults of two or more races (11 percent) were still enrolled in high school than Whites (8 percent) or Asians (7 percent). The percentage of Blacks still enrolled in high school was also higher than the percentages of Hispanics and Native Hawaiians/Pacific Islanders (both 7 percent).

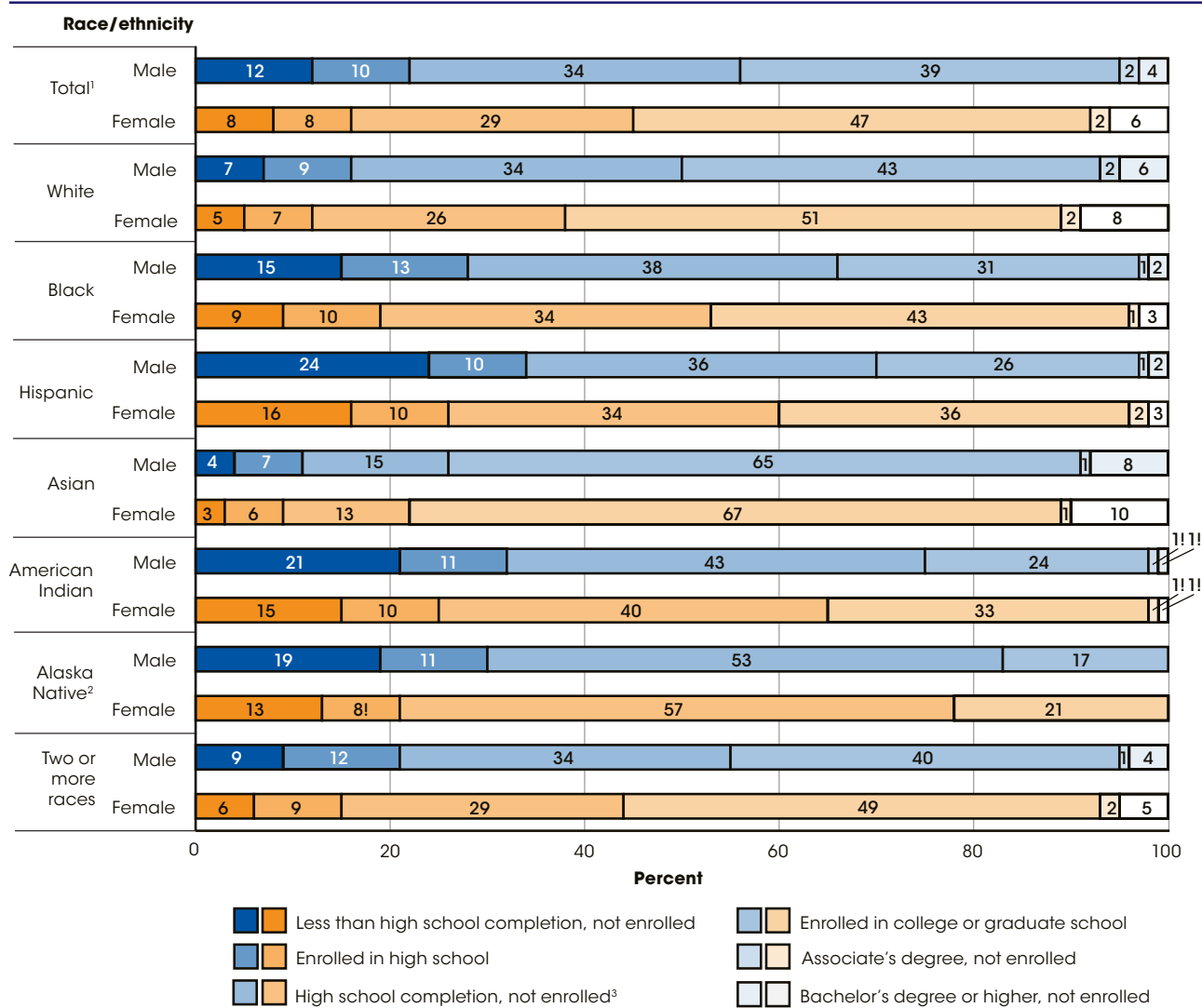
In 2010, a higher percentage of male than female 18- to 24-year-olds were not enrolled in school and had not completed high school (12 vs. 8 percent). This pattern was also found for Whites (7 vs. 5 percent), Blacks (15 vs. 9 percent), Hispanics (24 vs. 16 percent), Asians (4 vs. 3 percent), American Indians (21 vs. 15 percent), and persons of two or more races (9 vs. 6 percent). Differences in high school completion were also found across racial/ethnic groups. Higher percentages of Hispanics (20 percent), American Indians (18 percent), Alaska Natives (16 percent), and Blacks (12 percent) were not currently enrolled in school and had not completed high school compared to persons of two or more races (7 percent), Native Hawaiians/Pacific Islanders (6 percent), Whites (6 percent), and Asians (3 percent). The percentage of

Hispanics who had not completed high school was also higher than the percentages of Blacks and American Indians.

In 2010, a lower percentage of male than female 18- to 24-year-olds were enrolled in either college or graduate school (39 vs. 47 percent). This pattern was also observed for Whites (43 vs. 51 percent), Blacks (31 vs. 43 percent), Hispanics (26 vs. 36 percent), American Indians (24 vs. 33 percent), and persons of two or more races (40 vs. 49 percent). The percentage of 18- to 24-year-olds enrolled in college or graduate school differed across racial/ethnic groups. A higher percentage of Asians (66 percent) than all other racial/ethnic groups were enrolled in college or graduate school. Whites had higher college or graduate school enrollment rates (47 percent) than persons of two or more races (45 percent), and both of these racial/ethnic groups had higher enrollment rates than Native Hawaiians/Pacific Islanders (39 percent), Blacks (37 percent), Hispanics (31 percent), American Indians (28 percent), and Alaska Natives (19 percent). College or graduate school enrollment rates were higher for Blacks than for Hispanics; in addition, Blacks, Hispanics, and Native Hawaiians/Pacific Islanders had higher college or graduate school enrollment rates than American Indians and Alaska Natives.

Hispanics born outside of the United States may not have had access to the same educational opportunities as Hispanics born within the United States. Therefore, examining high school completion and college or graduate school enrollment rates by nativity helps highlight the experiences of young adults who may not have attended primary or secondary school in the United States. In 2010, over one-third of Hispanics born outside of the United States (36 percent) had not completed high school and were not currently enrolled compared to 13 percent of Hispanics born within the United States. In addition, a lower percentage of Hispanics born outside the United States were enrolled in college or graduate school than

**Figure 33-1. Percentage distribution of 18- to 24-year-olds in the household and group quarters population, by race/ethnicity, sex, and school enrollment status: 2010**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.  
<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
<sup>3</sup> The percentages of Alaska Natives with associate's degrees and bachelor's degrees or higher round to zero.  
<sup>4</sup> Includes equivalent credential, including a General Educational Development (GED) certificate. Young adults who reported completing some college but no degree are included in this category.  
 NOTE: Reporting standards for the percentage of Native Hawaiian/Pacific Islander males with a bachelor's degree or higher were not met; therefore, data for Native Hawaiians/Pacific Islanders are not shown in the figure. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.  
 SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

Hispanics born within the United States (17 vs. 37 percent).

A higher percentage of 18- to 24-year-olds were enrolled either in college or graduate school in 2010 than in 2006 (43 vs. 40 percent). This finding was also true for males (39 vs. 36 percent) and females (47 vs. 44 percent). The percentage of those enrolled in either college or graduate school were higher in 2010 than in 2006 for

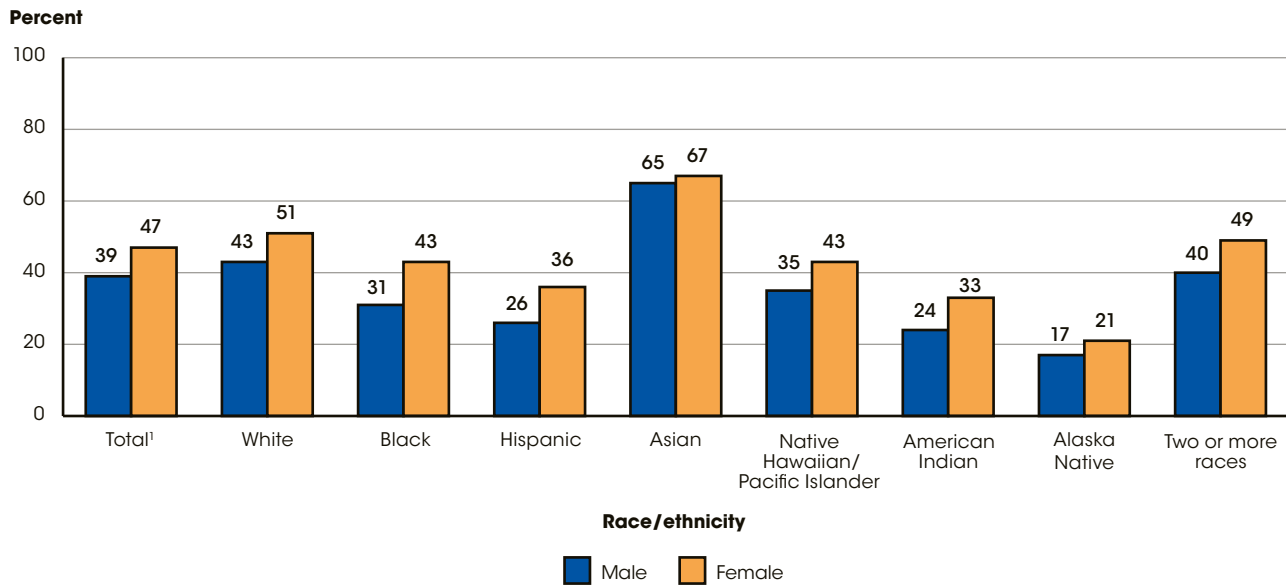
Asians (66 vs. 62 percent), Whites (47 vs. 44 percent), Native Hawaiians/Pacific Islanders (39 vs. 31 percent), Blacks (37 vs. 32 percent), Hispanics (31 vs. 25 percent), and American Indians (28 vs. 24 percent). Asian, White, Native Hawaiian/Pacific Islander, Black, and Hispanic males and Asian, White, Black, Hispanic, and American Indian females also had higher college or graduate school enrollment rates in 2010 than in 2006.

## Technical Notes

Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents. The American Community Survey includes noninstitutionalized and institutionalized group quarters. Noninstitutionalized group quarters

include college and university housing, military quarters, facilities for workers and religious groups, and temporary shelters for the homeless. Institutionalized group quarters include adult and juvenile correctional facilities, nursing facilities, and other health care facilities.

**Figure 33-2. Percentage of 18- to 24-year-olds in the household and group quarters population enrolled in college or graduate school, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.  
NOTE: Race categories exclude persons of Hispanic ethnicity.  
SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

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**Table 33-1. Number and percentage of 18- to 24-year-olds in the household and group quarters population, by school enrollment status, sex, race/ethnicity, and nativity: 2010**

Sex, race/ethnicity, and nativity	Total			Not currently enrolled in school						
	Number	Percentage distribution	Percentage enrolled in high school	Percentage enrolled in college or graduate school	Percentage with less than high school completion	Percentage with high school completion only <sup>1</sup>	Percentage with some college	Percentage with an associate's degree or higher		
								Total	Percentage with an associate's degree	Percentage with a bachelor's degree or higher
<b>Total<sup>2</sup></b>	<b>30,871,200</b>	<b>100.0</b>	<b>8.9</b>	<b>42.9</b>	<b>9.8</b>	<b>21.0</b>	<b>10.3</b>	<b>7.1</b>	<b>1.8</b>	<b>5.2</b>
Sex										
Male	15,797,100	51.2	9.6	38.6	11.8	23.8	10.3	6.0	1.7	4.3
Female	15,074,100	48.8	8.1	47.5	7.7	18.1	10.4	8.3	2.0	6.3
Race/ethnicity										
White	17,596,900	57.0	7.8	46.9	6.0	19.6	10.6	9.1	2.3	6.8
Black	4,451,300	14.4	11.7	36.6	12.3	24.4	11.4	3.6	1.2	2.4
Hispanic	6,212,100	20.1	10.0	31.1	20.2	25.3	9.8	3.7	1.4	2.3
Asian	1,497,300	4.9	6.9	66.0	3.1	8.1	6.0	9.9	1.2	8.7
Native Hawaiian/Pacific Islander	63,600	0.2	7.1	39.1	5.8	32.2	11.4	4.5	2.5!	2.1!
American Indian/Alaska Native <sup>3</sup>	251,400	0.8	10.2	28.7	17.2	29.7	11.8	2.5	1.2	1.3
American Indian	200,900	0.7	10.4	28.3	17.6	29.3	11.9	2.5	1.3	1.3
Alaska Native	17,300	0.1	10.1	18.6	16.5	47.2	7.6!	#	#	#
Two or more races	731,400	2.4	10.6	44.7	7.4	20.6	11.0	5.7	1.2	4.5
Race/ethnicity by sex										
Male										
White	8,955,800	56.7	8.6	43.0	7.0	22.9	10.9	7.7	2.2	5.5
Black	2,215,200	14.0	13.2	30.6	15.3	27.4	10.4	3.1	1.0	2.1
Hispanic	3,302,200	20.9	10.3	26.4	24.4	26.9	9.2	2.8	1.1	1.7
Asian	761,200	4.8	7.4	65.3	3.7	8.8	6.0	8.7	1.2	7.5
Native Hawaiian/Pacific Islander	32,600	0.2	9.6	34.9	5.8	34.1	11.1	4.6!	3.2!	‡
American Indian/Alaska Native <sup>3</sup>	127,700	0.8	10.7	24.5	19.6	32.2	10.6	2.4	1.2!	1.2!
American Indian	99,000	0.6	10.6	23.5	20.7	32.3	10.5	2.4	1.3!	1.1!
Alaska Native	9,500	0.1	11.4	16.6	19.3	47.8	4.9!	#	#	#
Two or more races	369,500	2.3	12.0	40.1	8.8	22.6	11.5	5.0	0.9	4.1

See notes at end of table.

**Table 33-1. Number and percentage of 18- to 24-year-olds in the household and group quarters population, by school enrollment status, sex, race/ethnicity, and nativity: 2010—Continued**

Sex, race/ethnicity, and nativity	Total			Not currently enrolled in school						
	Number	Percentage distribution	Percentage enrolled in high school	Percentage enrolled in college or graduate school	Percentage with less than high school completion	Percentage with high school completion only <sup>1</sup>	Percentage with some college	Percentage with an associate's degree or higher		
								Total	Percentage with an associate's degree	Percentage with a bachelor's degree or higher
<b>Total<sup>2</sup></b>	<b>30,871,200</b>	<b>100.0</b>	<b>8.9</b>	<b>42.9</b>	<b>9.8</b>	<b>21.0</b>	<b>10.3</b>	<b>7.1</b>	<b>1.8</b>	<b>5.2</b>
Race/ethnicity by sex										
Female										
White	8,641,100	57.3	7.1	51.0	5.0	16.2	10.2	10.5	2.4	8.1
Black	2,236,100	14.8	10.1	42.7	9.3	21.4	12.5	4.1	1.3	2.8
Hispanic	2,910,000	19.3	9.7	36.3	15.5	23.4	10.4	4.7	1.7	3.0
Asian	736,000	4.9	6.4	66.7	2.6	7.3	5.9	11.2	1.3	9.8
Native Hawaiian/Pacific Islander	30,900	0.2	4.5 †	43.5	5.7 †	30.3	11.6	4.5	1.7 †	2.8 †
American Indian/Alaska Native <sup>3</sup>	123,800	0.8	9.7	32.9	14.7	27.1	12.9	2.7	1.2	1.5 †
American Indian	101,900	0.7	10.2	32.9	14.6	26.4	13.2	2.6	1.3	1.4 †
Alaska Native	7,800	0.1	8.5 †	21.0	13.0	46.4	11.0 †	#	#	#
Two or more races	361,900	2.4	9.2	49.3	5.9	18.6	10.5	6.4	1.6	4.9
Nativity										
Hispanic or Latino										
Born within the United States <sup>4</sup>	4,271,500	68.8	11.2	37.5	12.9	23.7	10.8	4.0	1.5	2.5
Born outside of the United States	1,940,600	31.2	7.4	17.0	36.4	28.7	7.6	2.9	1.0	1.9

# Rounds to zero.

† Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. The coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes equivalent credential, including a General Educational Development (GED) certificate.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes persons reporting American Indian only, Alaska Native only, and persons from American Indian and/or Alaska Native tribes specified or not specified.

<sup>4</sup> Includes the 50 states, District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Marianas. Also includes those born abroad of American parents.

NOTE: Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

**Table 33-2. Number and percentage of 18- to 24-year-olds in the household and group quarters population, by school enrollment status, sex, race/ethnicity, and nativity: 2006**

Sex, race/ethnicity, and nativity	Total		Not currently enrolled in school							
	Number	Percentage distribution	Percentage enrolled in high school	Percentage enrolled in college or graduate school	Percentage with less than high school completion	Percentage with high school completion only <sup>1</sup>	Percentage with some college	Percentage with an associate's degree or higher		
								Total	Percentage with an associate's degree	Percentage with a bachelor's degree or higher
<b>Total<sup>2</sup></b>	<b>29,632,500</b>	<b>100.0</b>	<b>9.5</b>	<b>39.7</b>	<b>11.2</b>	<b>23.2</b>	<b>9.2</b>	<b>7.1</b>	<b>2.1</b>	<b>5.0</b>
Sex										
Male	15,289,800	51.6	10.2	35.6	13.3	26.0	9.1	5.9	1.9	4.0
Female	14,342,700	48.4	8.7	44.2	9.0	20.2	9.4	8.5	2.3	6.1
Race/ethnicity										
White	18,053,600	60.9	8.6	44.2	7.2	21.7	9.7	8.6	2.5	6.1
Black	4,138,100	14.0	12.8	32.4	13.6	27.2	9.7	4.4	1.7	2.7
Hispanic	5,270,700	17.8	9.7	25.4	24.8	28.3	7.9	3.8	1.6	2.2
Asian	1,265,700	4.3	7.8	62.1	3.4	10.0	5.7	10.9	1.4	9.5
Native Hawaiian/Pacific Islander	51,800	0.2	12.0	31.4	8.8	31.0	10.9	5.9	3.2	2.6 !
American Indian/Alaska Native <sup>3</sup>	254,500	0.9	14.0	24.6	17.9	30.2	10.3	3.0	1.7	1.3
American Indian	209,400	0.7	13.4	24.1	17.9	30.8	10.8	3.0	1.9	1.1
Alaska Native	14,200	0.1	27.2	14.7	20.4	30.5	4.7 !	2.4 !	‡	‡
Two or more races	505,500	1.7	11.4	43.2	8.6	21.3	10.1	5.3	1.7	3.6
Race/ethnicity by sex										
Male										
White	9,266,100	60.6	9.4	40.3	8.3	25.0	9.8	7.2	2.3	4.9
Black	2,086,000	13.6	14.0	27.7	16.7	29.0	9.1	3.4	1.5	1.9
Hispanic	2,843,800	18.6	9.6	20.7	29.2	30.2	7.2	3.1	1.3	1.8
Asian	640,600	4.2	8.2	60.5	3.9	11.5	6.4	9.5	1.2	8.3
Native Hawaiian/Pacific Islander	28,200	0.2	12.6	25.6	9.6	32.8	10.5	8.9	4.7 !	4.2 !
American Indian/Alaska Native <sup>3</sup>	127,900	0.8	15.7	21.4	20.2	30.7	9.5	2.5	1.3 !	1.2
American Indian	102,000	0.7	16.2	20.9	19.7	30.9	10.0	2.4	1.7 !	0.7 !
Alaska Native	7,500	0.1	23.7	11.4 !	24.2 !	37.0	‡	‡	#	‡
Two or more races	245,300	1.6	13.2	39.1	10.2	22.2	10.8	4.3	1.7	2.6

See notes at end of table.



**Table 33-2. Number and percentage of 18- to 24-year-olds in the household and group quarters population, by school enrollment status, sex, race/ethnicity, and nativity: 2006—Continued**

Sex, race/ethnicity, and nativity	Total			Not currently enrolled in school						
	Number	Percentage distribution	Percentage enrolled in high school	Percentage enrolled in college or graduate school	Percentage with less than high school completion	Percentage with high school completion only <sup>1</sup>	Percentage with some college	Percentage with an associate's degree or higher		
								Total	Percentage with an associate's degree	Percentage with a bachelor's degree or higher
<b>Total<sup>2</sup></b>	<b>29,632,500</b>	<b>100.0</b>	<b>9.5</b>	<b>39.7</b>	<b>11.2</b>	<b>23.2</b>	<b>9.2</b>	<b>7.1</b>	<b>2.1</b>	<b>5.0</b>
Race/ethnicity by sex										
Female										
White	8,787,500	61.3	7.8	48.2	6.1	18.1	9.7	10.1	2.6	7.5
Black	2,052,000	14.3	11.5	37.2	10.4	25.3	10.3	5.4	1.8	3.6
Hispanic	2,426,900	16.9	9.8	30.9	19.8	26.1	8.7	4.7	1.9	2.8
Asian	625,100	4.4	7.3	63.8	2.9	8.5	5.1	12.3	1.6	10.7
Native Hawaiian/Pacific Islander	23,600	0.2	11.2	38.2	8.0	28.9	11.4	2.2 !	1.5 !	‡
American Indian/Alaska Native <sup>3</sup>	126,600	0.9	12.3	27.9	15.5	29.6	11.2	3.4	2.0	1.4 !
American Indian	107,300	0.8	10.8	27.1	16.3	30.6	11.7	3.5	2.1 !	1.4 !
Alaska Native	6,700	0.1	31.2	18.4 !	16.2 !	23.3	6.8 !	4.0 !	‡	‡
Two or more races	260,200	1.8	9.7	47.1	7.0	20.5	9.5	6.2	1.6	4.5
Nativity										
Hispanic										
Born within the United States <sup>4</sup>	3,166,800	60.1	10.9	33.1	15.2	27.3	9.4	4.1	1.8	2.4
Born outside of the United States	2,103,900	39.9	7.9	13.8	39.4	29.9	5.7	3.3	1.3	2.1

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes equivalent credential, including a General Educational Development (GED) certificate.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes persons reporting American Indian only, Alaska Native only, and persons from American Indian and/or Alaska Native tribes specified or not specified.

<sup>4</sup> Includes the 50 states, District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Marianas. Also includes those born abroad of American parents.

NOTE: Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2006.

## Indicator 34

# Entry Into Postsecondary Education

*Among 2004 high school graduates, a higher percentage of females (83 percent) than males (76 percent) had ever attended a postsecondary institution by 2006. Higher percentages of females also enrolled immediately in a postsecondary institution (74 percent) and enrolled in moderately or highly selective institutions (41 percent) than did males (67 and 36 percent, respectively).*

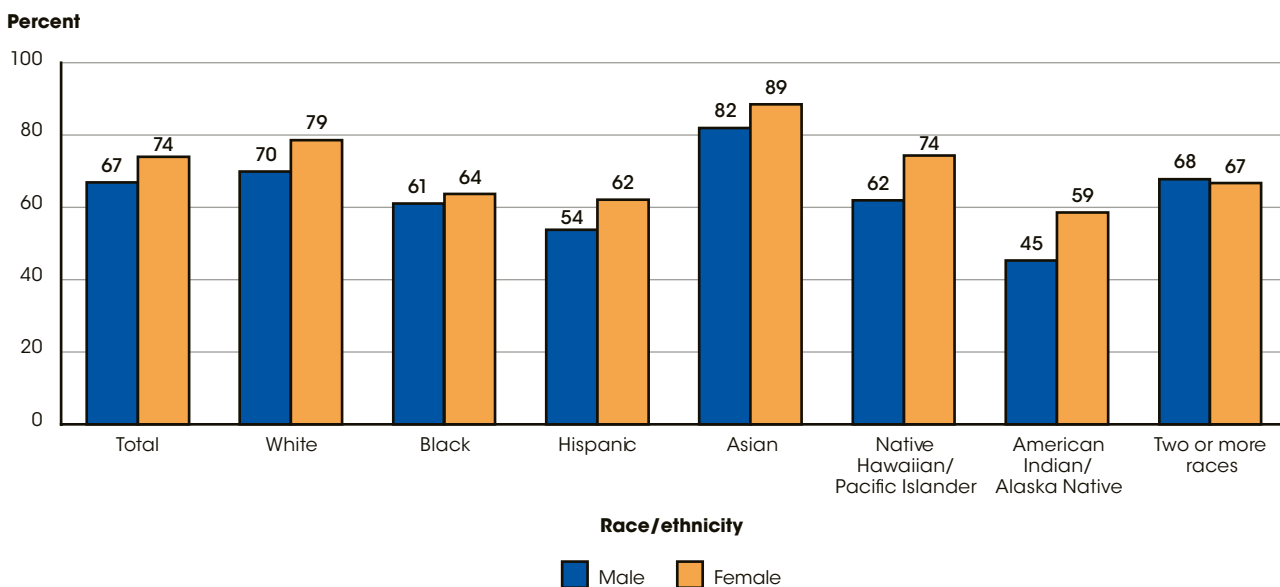
By 2006, about 80 percent of 2004 high school graduates had ever attended a postsecondary institution. Among the graduating class, 71 percent enrolled immediately after graduation from high school, and 9 percent delayed enrollment. A higher percentage of females (83 percent) than males (76 percent) had ever attended a postsecondary institution by 2006—a pattern that was also observed among White (85 vs. 78 percent, respectively) Hispanic (76 vs. 68 percent, respectively), and Asian (92 vs. 88 percent, respectively) high school graduates. The percentage of females with immediate postsecondary enrollment (74 percent) was higher than that of males (67 percent). This pattern held for White, Hispanic, and Asian students as well.

Overall racial/ethnic differences were also found. For example, the percentages of Black and Hispanic graduates who had ever attended a postsecondary institution by 2006 were lower than those of Whites and Asians (76 and 73 percent vs. 82 and 90 percent, respectively). A similar pattern was found among these groups concerning immediate postsecondary enrollment. In addition, lower

percentages of American Indian/Alaska Native students than Asian students had ever attended a postsecondary institution (70 vs. 90 percent), and lower percentages of American Indian/Alaska Native students had enrolled in postsecondary education immediately after high school graduation (52 percent) than did their Asian and White counterparts (85 and 74 percent, respectively).

Postsecondary institutions include 4-year institutions, 2-year institutions, and less-than 2-year institutions. Among 2004 high school graduates, 48 percent first attended a 4-year institution, 30 percent first attended a 2-year institution, and 2 percent first attended a less-than 2-year institution. Overall, female high school graduates first attended 4-year institutions at a higher rate than males (50 percent vs. 46 percent, respectively). This pattern by sex was also observed among White and Asian high school graduates. No measurable differences by sex were found among Black, Hispanic, or American Indian/Alaska Native graduates or among high school graduates of two or more races. Across racial/ethnic groups overall, Blacks (44 percent), Hispanics (29 percent), and American

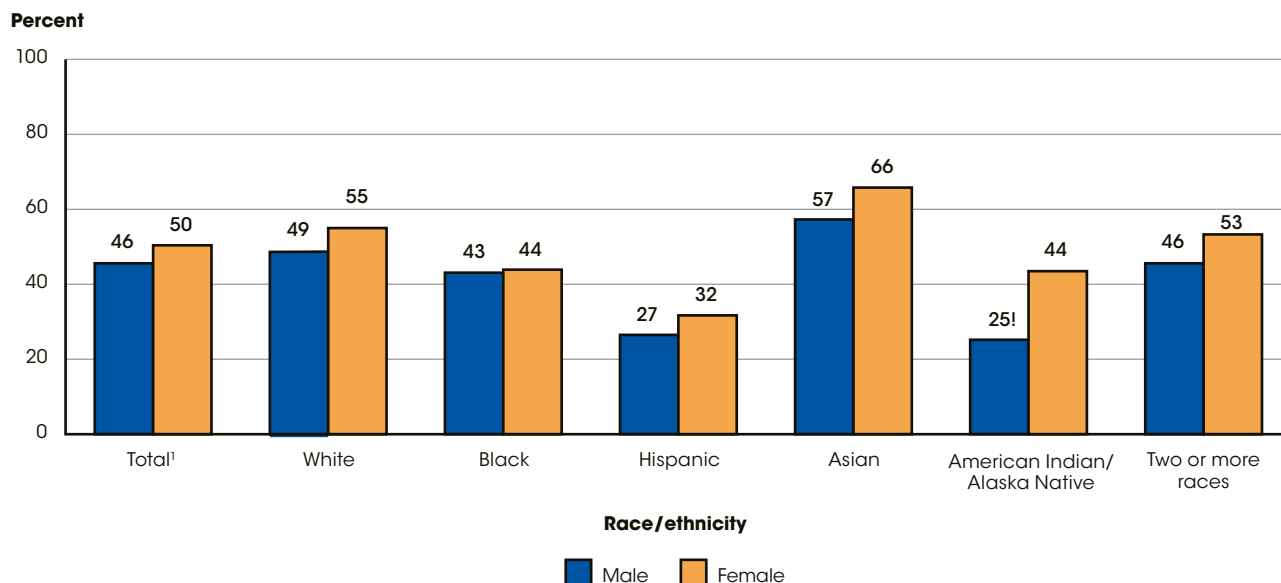
**Figure 34-1. Percentage of 2004 high school graduates who immediately enrolled in first postsecondary institution, by race/ethnicity and sex: 2006**



NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Figure 34-2. Percentage of 2004 high school graduates who first attended a 4-year postsecondary institution, by race/ethnicity and sex: 2006**



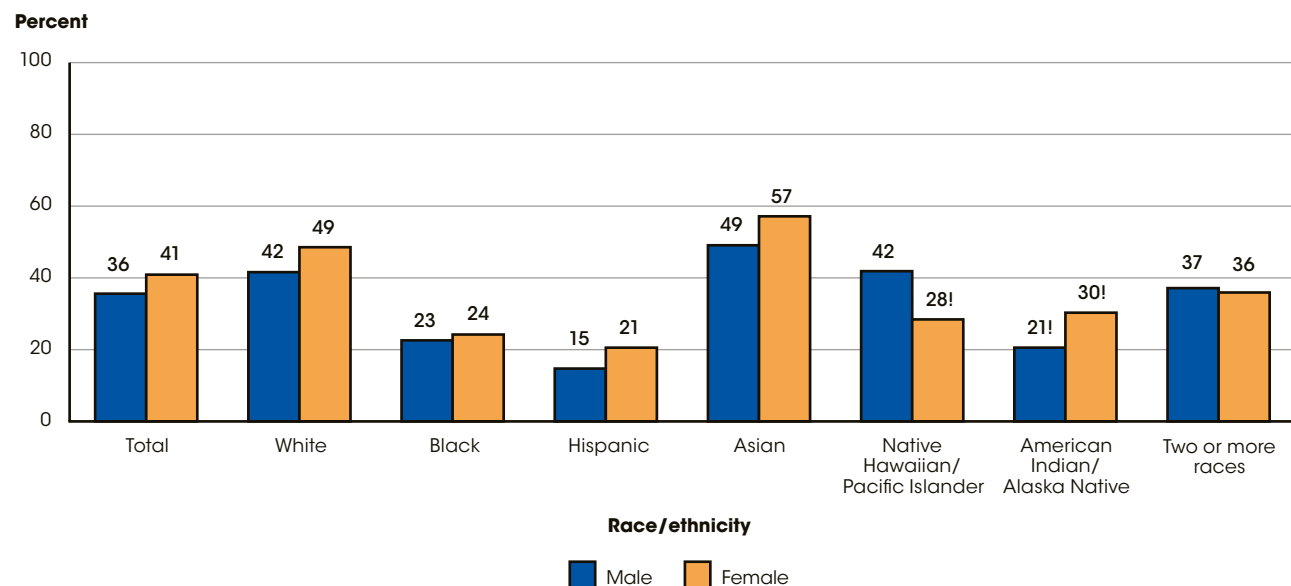
! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

**Figure 34-3. Percentage of 2004 high school graduates who first attended a moderately or highly selective postsecondary institution, by race/ethnicity and sex: 2006**



! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

NOTE: The moderately or highly selective categories correspond to 25th percentile ACT-equivalent scores of students who were accepted to the institution. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002/2006), "Base-year (2002) to Second Follow-up (2006)."

Indians/Alaska Natives (35 percent) first attended 4-year institutions at lower rates than Whites (52 percent) and Asians (61 percent). However, Black high school graduates first attended 4-year institutions at a higher rate than their Hispanic counterparts.

Among the 2004 high school graduating class, some 16 percent of graduates first attended a highly selective 4-year institution by 2006. Twenty-three percent first attended a moderately selective 4-year institution, 6 percent attended an inclusive 4-year institution, and 4 percent attended a 4-year institution of unknown selectivity. The percentage of males attending moderately or highly selective 4-year

institutions (36 percent) was lower than the percentage of females (41 percent) who did. This pattern by sex held for Whites (42 vs. 49 percent, respectively), Hispanics (15 vs. 21 percent, respectively), and Asians (49 vs. 57 percent, respectively). Across racial/ethnic groups, Black and Hispanic students attended moderately or highly selective 4-year institutions (23 and 18 percent, respectively) at lower percentages than did Whites, Asians, and those of two or more races (45, 53, and 37 percent, respectively). Black students attended moderately or highly selective 4-year institutions at a higher percentage than did Hispanic students.

## Technical Notes

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Respondents are considered to have immediate enrollment if they reported that they enrolled in their first postsecondary institution in December 2004 or earlier. Respondents are considered to have delayed enrollment if they reported that they enrolled in their first postsecondary institution in January 2005 or later. The selectivity of institutions is defined according to the definition used in NCES's Integrated Postsecondary

Education Data System, which is based on the 2005 Carnegie Classification of Institutions. The "inclusive," "moderately selective," and "highly selective" categories correspond to 25th percentile ACT-equivalent scores of students who were accepted to the institution. The score ranges for the categories are less than 18, between 18 and 21, and greater than 21 points, respectively.

**Table 34-1. Percentage of academic year 2004 high school graduates, by the timing of first postsecondary enrollment, sex, and race/ethnicity: 2006**

Sex and race/ethnicity	Ever attended a postsecondary institution	Immediate enrollment in postsecondary education <sup>1</sup>	Delayed enrollment in postsecondary education <sup>2</sup>	Nonenrollee, or still enrolled in high school
<b>Total</b>	<b>79.8</b>	<b>70.6</b>	<b>9.2</b>	<b>20.2</b>
Sex				
Male	76.4	66.9	9.5	23.6
Female	83.0	74.0	8.9	17.0
Race/ethnicity				
White	81.9	74.4	7.5	18.1
Black	76.3	62.5	13.8	23.7
Hispanic	72.6	58.4	14.1	27.4
Asian	90.0	85.2	4.8	10.0
Native Hawaiian/Pacific Islander	74.4	66.5	6.8	25.6 !
American Indian/Alaska Native	69.6	52.1	17.5 !	30.4
Two or more races	74.0	67.2	6.8	26.0
Race/ethnicity by sex				
Male				
White	78.3	69.9	8.4	21.7
Black	73.7	61.1	12.6	26.3
Hispanic	68.2	53.9	14.3	31.8
Asian	87.9	82.0	5.8	12.1
Native Hawaiian/Pacific Islander	65.1	62.0	3.1	34.9 !
American Indian/Alaska Native	62.5	45.3	17.3 !	37.5 !
Two or more races	72.4	67.8	4.6 !	27.6
Female				
White	85.4	78.7	6.7	14.6
Black	78.6	63.7	14.9	21.4
Hispanic	76.2	62.2	14.0	23.8
Asian	92.3	88.6	3.7	7.7
Native Hawaiian/Pacific Islander	89.2	74.4	13.4	‡
American Indian/Alaska Native	76.4	58.6	17.8	23.6 !
Two or more races	75.7	66.7	8.9	24.3

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Students reporting that they enrolled in their first postsecondary institution by December 2004 or earlier.

<sup>2</sup> Students reporting that they enrolled in their first postsecondary institution by January 2005 or later.

NOTE: Estimates were weighted by F2F1WT. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Table 34-2. Percentage of academic year 2004 high school graduates, by the level of postsecondary institution first attended, sex, and race/ethnicity: 2006**

Sex and race/ethnicity	4-year institution	2-year institution	Less-than-2-year institution	Nonenrollee or still enrolled in high school
<b>Total</b>	<b>48.1</b>	<b>29.7</b>	<b>2.0</b>	<b>20.3</b>
Sex				
Male	45.6	29.1	1.7	23.7
Female	50.4	30.2	2.3	17.1
Race/ethnicity				
White	52.3	28.1	1.5	18.1
Black	43.5	29.6	3.1	23.8
Hispanic	29.3	39.6	3.4	27.7
Asian	61.4	27.8	0.8!	10.0
Native Hawaiian/Pacific Islander	45.6	24.8!	‡	26.8!
American Indian/Alaska Native	34.5	32.3	‡	30.4
Two or more races	49.5	22.1	2.4!	26.0
Race/ethnicity by sex				
Male				
White	49.5	27.6	1.2	21.7
Black	43.1	27.9	2.6	26.4
Hispanic	26.5	38.2	3.2	32.1
Asian	57.3	30.0	‡	12.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	25.2!	33.6!	‡	37.5!
Two or more races	45.6	24.7	‡	27.6
Female				
White	55.0	28.5	1.8	14.6
Black	43.9	31.0	3.6	21.5
Hispanic	31.7	40.7	3.6	24.0
Asian	65.8	25.4	1.0!	7.8
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	43.5	31.1	‡	23.6!
Two or more races	53.3	19.5	2.8!	24.3

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Estimates were weighted by F2F1WT. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Table 34-3. Percentage of academic year 2004 high school graduates, by the selectivity of the first postsecondary institution attended, sex, and race/ethnicity: 2006**

Sex and race/ethnicity	4-year institution					Less-than-4-year institution	Nonenrollee or still enrolled in high school
	Moderately or highly selective	Highly elective	Moderately selective	Inclusive	Unknown selectivity		
<b>Total</b>	<b>38.3</b>	<b>15.8</b>	<b>22.5</b>	<b>5.8</b>	<b>4.0</b>	<b>31.7</b>	<b>20.2</b>
Sex							
Male	35.6	15.2	20.4	5.6	4.4	30.7	23.7
Female	40.9	16.4	24.4	5.9	3.6	32.6	17.1
Race/ethnicity							
White	45.2	19.0	26.1	3.7	3.4	29.6	18.1
Black	23.4	5.7	17.7	16.6	3.5	32.7	23.8
Hispanic	17.9	6.4	11.5	5.1	6.4	43.0	27.6
Asian	53.0	33.3	19.7	4.8	3.6	28.6	10.0
Native Hawaiian/ Pacific Islander	37.1	‡	27.4	‡	#	27.6	26.8 !
American Indian/ Alaska Native	25.5	‡	18.0	‡	‡	35.1	30.4
Two or more races	36.5	13.8	22.7	7.3	5.7	24.5	26.0
Race/ethnicity by sex							
Male							
White	41.6	18.0	23.6	4.0	3.8	28.8	21.7
Black	22.6	5.8	16.8	16.8	3.7	30.4	26.4
Hispanic	14.7	5.9	8.8	4.1	7.9	41.3	31.9
Asian	49.1	29.4	19.7	3.9	4.3	30.6	12.1
Native Hawaiian/ Pacific Islander	41.9	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	20.6 !	‡	16.6 !	‡	‡	37.3 !	37.5 !
Two or more races	37.1	16.1	21.0	4.4 !	4.1 !	26.7	27.6
Female							
White	48.5	20.0	28.6	3.5	3.0	30.3	14.6
Black	24.2	5.7	18.5	16.4	3.2	34.7	21.4
Hispanic	20.6	6.8	13.7	5.9	5.2	44.5	23.9
Asian	57.2	37.5	19.7	5.7	3.0	26.4	7.8
Native Hawaiian/ Pacific Islander	28.4 !	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	30.3 !	‡	19.3 !	‡	‡	32.9	23.6 !
Two or more races	35.9	11.5	24.4	10.1	7.4 !	22.3	24.3

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

NOTE: Estimates were weighted by F2FIWT. The selectivity of institutions is defined according to the definition used in NCES's Integrated Postsecondary Education Data System, which is based on the 2005 Carnegie Classification of Institutions. The "inclusive," "moderately selective," and "highly selective" categories correspond to 25th percentile ACT-equivalent scores of students who were accepted to the institution. The score ranges for the categories are less than 18, between 18 and 21, and greater than 21 points, respectively. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

## Price of Attendance and Financial Aid

*In 2007–08, the average annual total price of attendance for undergraduates who attended full time, full year at one institution was not measurably different for males and females. A higher percentage of female than male undergraduates (82 vs. 77 percent) received financial aid. Among students who received financial aid, the average amount of total aid was not measurably different between males and females.*

The total price of attending a postsecondary institution includes tuition and fees, books and materials, and an allowance for living expenses. In 2007–08, the annual average was \$22,400 for the total price of attendance for undergraduates who attended full time, full year at one institution.<sup>6</sup> In 2007–08, the average annual total price of attendance for full-time, full-year undergraduates was not measurably different for males and females overall or within racial/ethnic groups.

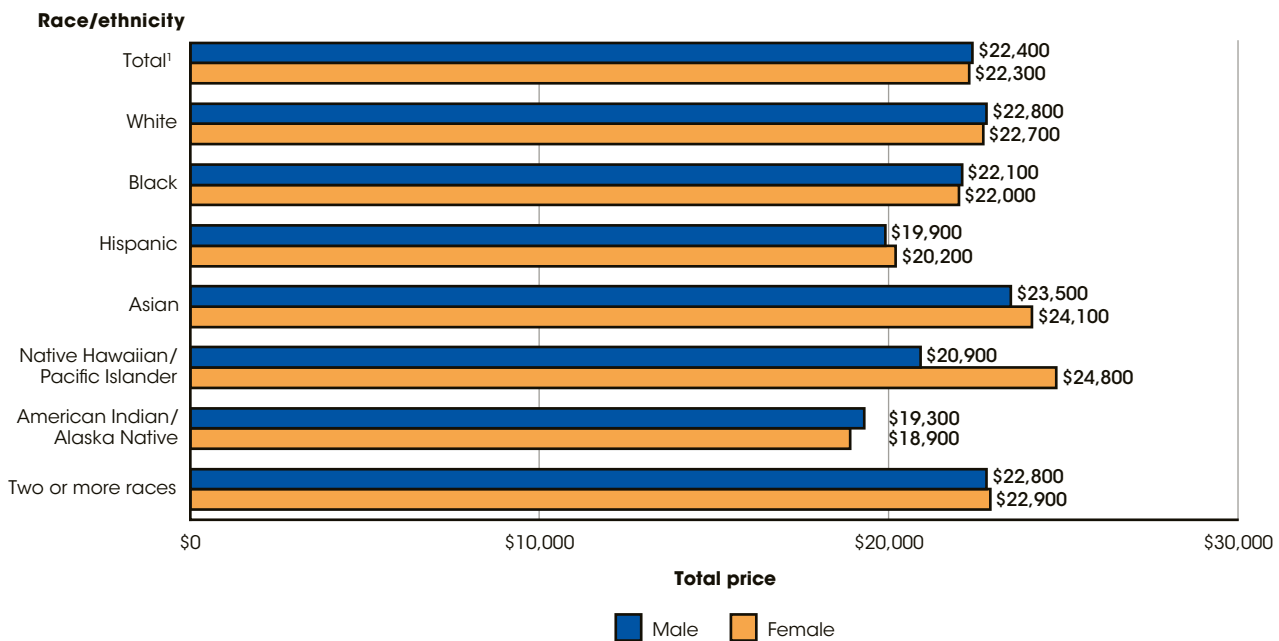
The average annual total price of attendance for full-time, full-year undergraduates varied by race/ethnicity in 2007–08. The average price was higher for Asians (\$23,800), Native Hawaiians/Pacific Islanders (\$22,900), students of two or more races (\$22,800), Whites (\$22,700), and Blacks (\$22,000) than for Hispanics (\$20,000) and American Indians/Alaska Natives (\$19,100). In addition, the average price was higher for Asians than for Whites and Blacks.

<sup>6</sup> Within this indicator, “undergraduates who attended full time, full year at one institution” was shortened to “full-time, full-year undergraduates.”

Most students and their families did not pay the full price of attendance at postsecondary institutions. In 2007–08, approximately 80 percent of all full-time, full-year undergraduates and their families received financial aid to defray their expenses. Among students who received financial aid, the average amount of total aid was approximately \$12,900 annually. A higher percentage of female than male students received financial aid (82 vs. 77 percent). The same pattern also was observed for White, Hispanic, and Asian males and females. For example, about 89 percent of Hispanic females received financial aid, compared with 82 percent of Hispanic males. However, among the students who received aid, the average amount of total aid was not measurably different for males and females overall or within each racial/ethnic group.

The percentage of full-time, full-year undergraduates who received financial aid and the average amount received varied by race/ethnicity in 2007–08. The percentage of Asian students receiving financial aid (68 percent)

**Figure 35-1. Average annual total price of attendance for undergraduates who attended full time, full year at one institution, by race/ethnicity and sex: Academic year 2007–08**



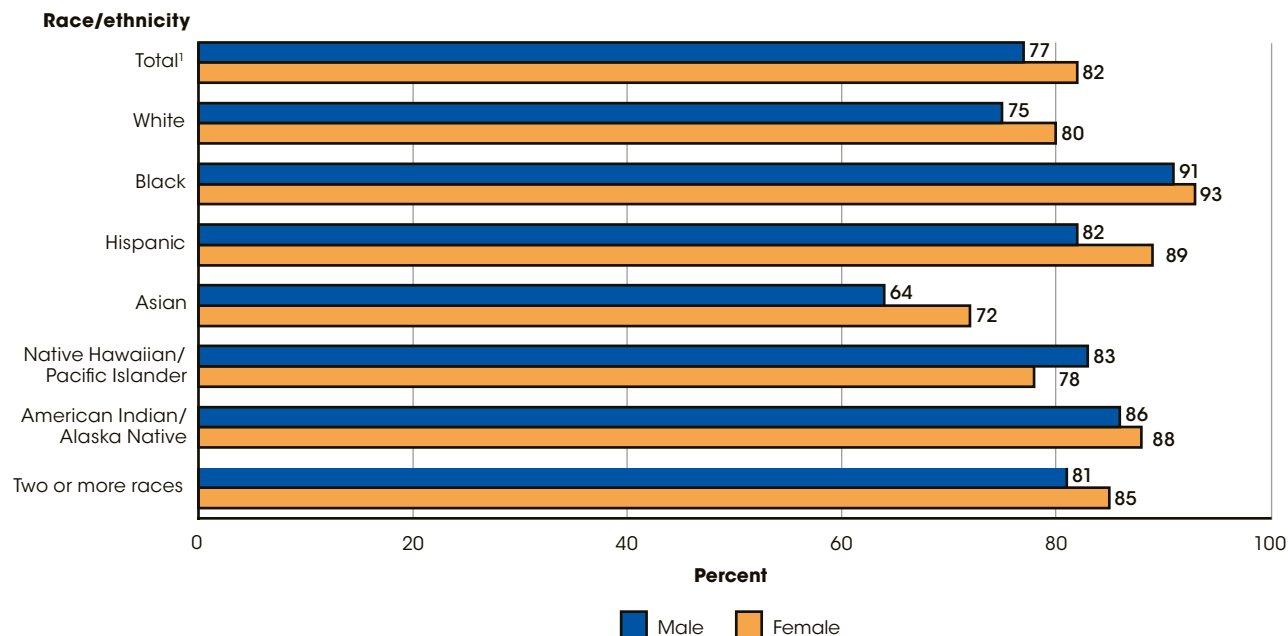
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: The total price of attendance for a postsecondary institution includes tuition and fees, books and supplies, room and board, and transportation and personal expenses. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).



**Figure 35-2. Percentage of undergraduates attending full time, full year at one institution who received financial aid, by race/ethnicity and sex: Academic year 2007–08**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Financial aid includes all types of aid from any source except parents, friends, or relatives. Parent Loans for Undergraduate Students (PLUS) are also included. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

was lower than the percentage of students from any other racial/ethnic group receiving it. The percentages of Black (92 percent), American Indian/Alaska Native (87 percent), and Hispanic (86 percent) undergraduates and undergraduates of two or more races (84 percent) receiving financial aid were higher than the percentage of Whites receiving aid (78 percent). In addition, the percentage of Black students receiving financial aid was higher than the percentages of Hispanic students, students of two or more races, and Native Hawaiian/Pacific Islander students (80 percent) receiving aid. Among undergraduates who received financial aid, the average amount of total aid received was lower for American Indians/Alaska Natives (\$10,800) and Hispanics (\$11,500) than for students of any other racial/ethnic group; in addition, the average amount for Blacks (\$13,600) was higher than that for Whites (\$13,000).

In 2007–08, about 53 percent of full-time, full-year undergraduates received student loans to pay for their expenses; among students who received student loans, the average annual amount of total student loans was \$8,000. A higher percentage of females than males

received student loans (55 vs. 50 percent). The same pattern also was observed for White and Black males and females. For example, 72 percent of Black females received student loans, compared with 65 percent of Black males. However, among students who took out student loans, the average amount of total student loans was not measurably different between males and females overall or within each racial/ethnic group.

In 2007–08, the percentage of full-time, full-year undergraduates who received student loans and the average amount received varied by race/ethnicity. Specifically, the percentage of students who received student loans was higher for Blacks (70 percent) than for students of any other racial/ethnic group. In addition, the percentage of students of two or more races who received student loans (58 percent) was higher than the percentages of White (52 percent) and Hispanic (49 percent) students receiving them. Among students who took out student loans, the average annual amounts of total student loans were higher for Whites (\$8,100) and Blacks (\$8,000) than for Asians (\$7,400); no measurable differences were found among other racial/ethnic groups.

## Technical Notes

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Financial aid amounts are averages for those who received the specified type of aid. Full-time, full-year undergraduates were enrolled full time for 9 or more months from July 1, 2007, to June 30, 2008. Months did not have to be contiguous, and students did not have to be enrolled for a full month in order to be considered enrolled for that month. “Full time” is usually defined as 12 or more credit hours. “Total aid” includes all types of financial aid from any source, except parents, friends,

or relatives. Parent Loans for Undergraduate Students (PLUS) are also included in “total aid,” but are excluded from “total student loans.” “Total grants” includes grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. “Total student loans” includes federal, state, institutional, and private (alternative) loans. Estimates presented include dependent and independent undergraduates.

**Table 35-1. Average annual tuition and fees, price of attendance, and financial aid for undergraduates who attended full time, full year at one institution, by sex and race/ethnicity: Academic year 2007-08**

Sex and race/ethnicity	Percent of undergraduates who attended full time/full year at one institution	Average annual tuition and fees	Average annual total price of attendance	Financial aid					
				Total aid		Total grants		Total student loans	
				Percent of full-time/full-year students receiving aid	Average annual amount for those receiving aid	Percent of full-time/full-year students receiving grants	Average annual amount for those receiving grants	Percent of full-time/full-year students receiving loans	Average annual amount for those receiving loans
<b>Total<sup>1</sup></b>	<b>35.4</b>	<b>\$10,300</b>	<b>\$22,400</b>	<b>80.1</b>	<b>\$12,900</b>	<b>65.3</b>	<b>\$7,200</b>	<b>53.1</b>	<b>\$8,000</b>
Sex									
Male	36.2	10,500	22,400	77.0	13,000	61.3	7,300	50.3	8,100
Female	34.8	10,200	22,300	82.5	12,800	68.5	7,200	55.2	8,000
Race/ethnicity									
White	37.6	10,900	22,700	77.8	13,000	61.6	7,200	52.3	8,100
Black	29.4	9,100	22,000	92.0	13,600	79.7	7,100	69.8	8,000
Hispanic	31.2	8,100	20,000	86.0	11,500	74.9	6,600	49.3	7,900
Asian	37.5	11,700	23,800	68.0	12,900	55.6	9,100	36.4	7,400
Native Hawaiian/Pacific Islander	28.8	10,400	22,900	80.2	13,400	68.3	6,000	51.9	8,700
American Indian/Alaska Native	29.1	8,000	19,100	86.7	10,800	77.3	6,700	47.9	7,100
Two or more races	38.7	10,400	22,800	83.5	13,700	68.3	8,300	57.8	7,600
Race/ethnicity by sex									
Male									
White	38.2	11,000	22,800	75.2	13,200	58.2	7,300	50.3	8,200
Black	29.2	9,700	22,100	90.6	13,900	77.0	7,700	65.0	8,100
Hispanic	31.8	8,000	19,900	82.3	11,300	70.0	6,500	46.4	7,800
Asian	40.0	11,600	23,500	63.9	12,600	50.4	8,300	36.9	7,200
Native Hawaiian/Pacific Islander	31.0	8,300	20,900	82.9	12,500	72.8	5,200	50.9	9,400
American Indian/Alaska Native	28.3	7,800	19,300	85.7	10,500	73.7	6,400	43.2	7,100
Two or more races	38.2	10,300	22,800	81.0	13,600	68.1	7,900	53.3	7,700
Female									
White	37.1	10,700	22,700	79.9	12,900	64.5	7,200	54.0	8,100
Black	29.6	8,800	22,000	92.8	13,400	81.2	6,800	72.5	7,900
Hispanic	30.8	8,200	20,200	88.7	11,500	78.3	6,600	51.3	8,000
Asian	35.4	11,800	24,100	72.0	13,100	60.8	9,600	35.9	7,600
Native Hawaiian/Pacific Islander	27.1	12,200	24,800	77.7	14,400	64.2	6,800	52.7	8,100
American Indian/Alaska Native	29.8	8,200	18,900	87.5	11,000	80.2	6,900	51.6	7,200
Two or more races	39.1	10,500	22,900	85.2	13,800	68.5	8,500	60.9	7,600

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Amounts are averages for those who received the specified type of aid. Full-time/full-year students were enrolled full time for 9 or more months from July 1, 2007 to June 30, 2008. Months did not have to be contiguous, and students did not have to be enrolled for a full month in order to be considered enrolled for that month. "Full time" is usually defined as 12 or more credit hours. The total price of attendance for a postsecondary institution includes tuition and fees, books and supplies, room and board, and transportation and personal expenses. "Total aid" includes all types of financial aid from any source except parents, friends, or relatives. Parent Loans for Undergraduate Students (PLUS) are also included in "total aid," but are excluded from "total student loans." "Total grants" includes grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. "Total student loans" includes federal, state, institutional, and private (alternative) loans. Estimates presented include dependent and independent undergraduates. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007-08 National Postsecondary Student Aid Study (NPSAS:08).

## Indicator 36 Enrollment Intensity

*In 2007–08, a higher percentage of male than female undergraduates enrolled as full-time students (49 vs. 47 percent). The percentage of male undergraduates (35 percent) who enrolled as part-time students was not measurably different from that of females (36 percent).*

During the 2007–08 academic year, 48 percent of undergraduates were full-time students, 35 percent were part-time students, and 17 percent enrolled on a mixed full-time and part-time basis. The attendance patterns of undergraduates varied according to students' sex and race/ethnicity.

In 2007–08, a higher percentage of males than females enrolled as full-time students (49 vs. 47 percent). The percentage of undergraduates who enrolled on a full-time basis was higher for White males than for White females (51 vs. 48 percent). Within other racial/ethnic groups, no measurable differences were observed between the percentages of males and females who enrolled on a full-time basis.

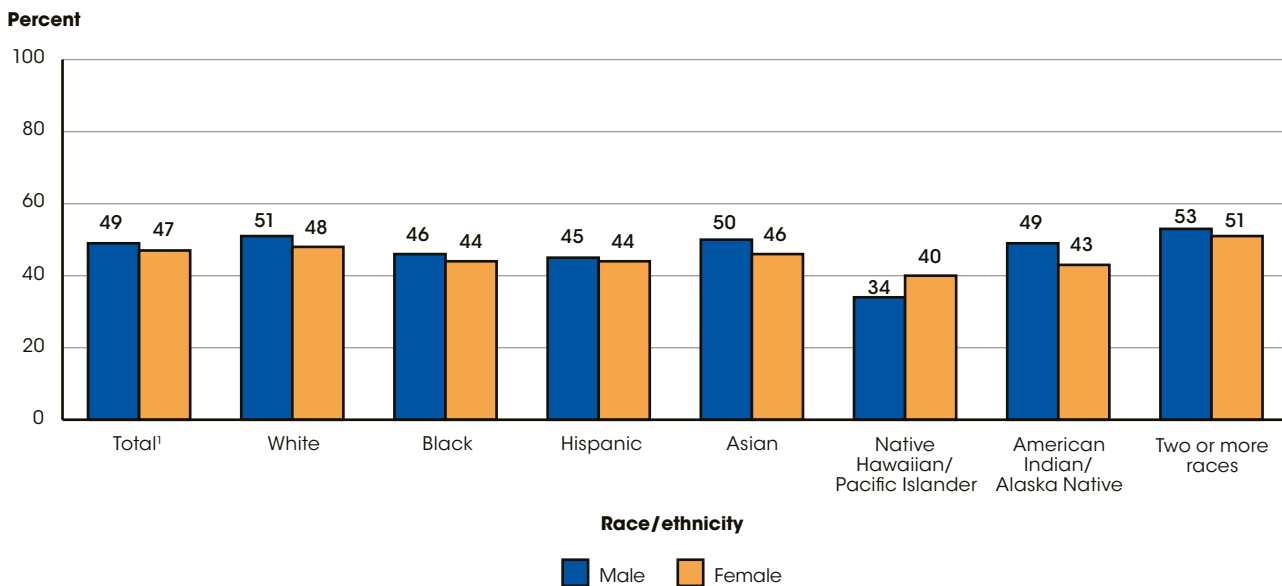
Lower percentages of Black (45 percent), Hispanic (45 percent), and Native Hawaiian/Pacific Islander (37 percent) undergraduates enrolled as full-time students than Asian (48 percent), White (49 percent), and undergraduates of two or more races (52 percent). In addition, the full-time percentage was higher for Hispanics and Blacks than for Native Hawaiians/Pacific Islanders. This overall pattern of full-time enrollment by

race/ethnicity also was observed for male undergraduates. Among female undergraduates, lower percentages of Blacks and Hispanics (44 percent each) enrolled on a full-time basis than Whites (48 percent) and students of two or more races (51 percent).

No measurable differences were found between the percentages of male (35 percent) and female (36 percent) undergraduates who enrolled on a part-time basis; nor were measurable differences observed between males and females within racial/ethnic groups.

Higher percentages of Native Hawaiians/Pacific Islanders (40 percent), Blacks (38 percent), and Hispanics (37 percent) enrolled as part-time students than did Whites (34 percent), Asians (34 percent), and students of two or more races (31 percent). The same pattern of part-time enrollment was also observed for male undergraduates, with the exception that no measurable differences were observed between Native Hawaiian/Pacific Islander males and White or Asian males. Specifically, among male undergraduates, 39 percent of Blacks and 38 percent of Hispanics enrolled on a part-time basis, compared with 34 percent of Whites,

**Figure 36-1. Percentage of undergraduate students who always attended their undergraduate institutions full time, by race/ethnicity and sex: Academic year 2007–08**

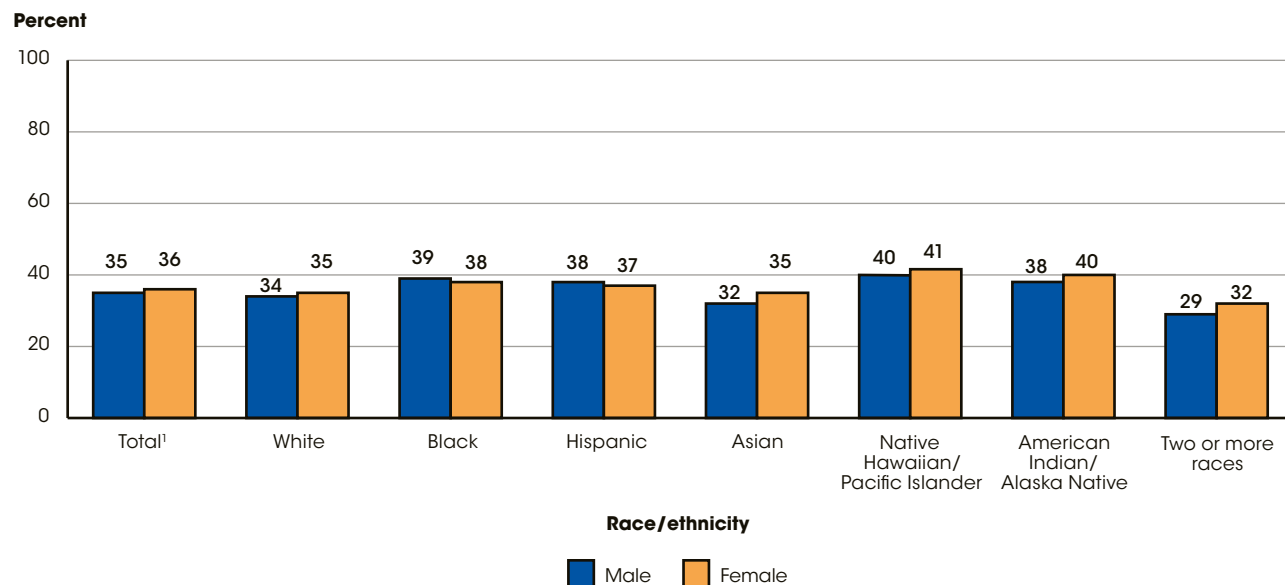


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Undergraduates in this indicator are those enrolled in 4-year, 2-year, and less-than-2-year institutions in the 50 states, District of Columbia, and Puerto Rico. Full-time students refers to those who were enrolled full time during the entire enrollment duration, which could be less than the full academic year (e.g., just one term or semester). Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

**Figure 36-2. Percentage of undergraduate students who always attended their undergraduate institutions part time, by race/ethnicity and sex: Academic year 2007–08**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Undergraduates in this indicator are those enrolled in 4-year, 2-year, and less-than-2-year institutions in the 50 states, District of Columbia, and Puerto Rico. *Part-time students* refers to students who were enrolled part time during the entire enrollment duration. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

32 percent of Asians, and 29 percent of students of two or more races. In addition, the percentages of male undergraduates who enrolled on a part-time basis were higher for Native Hawaiians/Pacific Islanders (40 percent) and Whites than for male students of two or more races. Among female undergraduates, a higher percentage of Blacks enrolled on a part-time basis (38 percent) than Whites (35 percent) and students of two or more races (32 percent); and a higher percentage of Hispanics enrolled part-time (37 percent) than students of two or more races.

Both overall and by race/ethnicity, the percentages of undergraduates who enrolled as full-time students or part-time students did not measurably change from 2003–04 to 2007–08. However, the percentage of male undergraduates enrolled on a full-time basis was higher in 2003–04 than in 2007–08 (52 vs. 49 percent); and the percentage of males enrolled as part-time students was lower in 2003–04 than in 2007–08 (33 vs. 35 percent). The percentages of female students who enrolled as either full-time or part-time students did not measurably change from 2003–04 to 2007–08.

## Technical Notes

Undergraduates in this indicator are those enrolled in 4-year, 2-year, and less-than-2-year institutions in the 50 states, District of Columbia, and Puerto Rico. *Full-time students* refers to those who enrolled full time during their entire enrollment duration. The enrollment duration could be less than the full academic year (e.g., just one term or semester). *Part-time students* refers to students who always

enrolled part time during the entire enrollment duration. *Mixed full-time and part-time enrollment intensity* indicates a change in students' enrollment status during the enrollment duration, regardless of whether they started as part-time students and subsequently changed to full-time students or vice versa.

**Table 36-1. Percentage distribution of undergraduate postsecondary students, by enrollment intensity, sex, and race/ethnicity: Academic years 2003-04 and 2007-08**

Sex and race/ethnicity	2003-04			2007-08		
	Always full-time	Mixed full-time and part-time	Always part-time	Always full-time	Mixed full-time and part-time	Always part-time
<b>Total<sup>1</sup></b>	<b>48.8</b>	<b>16.1</b>	<b>35.1</b>	<b>47.7</b>	<b>16.9</b>	<b>35.4</b>
Sex						
Male	51.7	15.7	32.6	49.1	16.0	34.8
Female	46.7	16.4	36.9	46.6	17.6	35.8
Race/ethnicity						
White	50.5	15.7	33.8	49.1	16.5	34.4
Black	47.3	15.6	37.1	44.6	17.1	38.4
Hispanic	43.3	17.5	39.2	44.6	18.0	37.4
Asian	48.4	19.0	32.6	47.8	18.6	33.5
Native Hawaiian/Pacific Islander	39.3	16.8	44.0	37.4	22.2	40.4
American Indian/Alaska Native	47.8	13.1	39.2	45.8	15.0	39.2
Two or more races	48.6	16.4	35.0	51.6	17.5	30.8
Race/ethnicity by sex						
Male						
White	53.4	15.1	31.5	50.6	15.7	33.7
Black	50.8	14.8	34.4	45.8	15.5	38.7
Hispanic	44.9	17.4	37.7	45.3	16.4	38.3
Asian	50.6	19.2	30.3	49.8	18.3	32.0
Native Hawaiian/Pacific Islander	39.8	21.3	38.9	34.2	26.2	39.6
American Indian/Alaska Native	52.4	11.1 <sup>!</sup>	36.5	49.0	13.2	37.8
Two or more races	51.8	18.9	29.3	53.3	18.0	28.8
Female						
White	48.2	16.1	35.6	47.9	17.1	35.0
Black	45.3	16.1	38.6	43.9	18.0	38.2
Hispanic	42.1	17.6	40.2	44.2	19.0	36.7
Asian	46.4	18.9	34.7	46.2	19.0	34.8
Native Hawaiian/Pacific Islander	38.9	13.0	48.1	40.0	19.0	41.0
American Indian/Alaska Native	45.0	14.2	40.8	43.2	16.5	40.3
Two or more races	46.3	14.6	39.1	50.5	17.3	32.2

<sup>!</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Undergraduates in this indicator are those enrolled in 4-year, 2-year, and less-than-2-year institutions in the 50 states, District of Columbia, and Puerto Rico. *Always full-time students* refers to those who were enrolled full time during the entire enrollment duration, which could be less than the full academic year (e.g., just one term or semester). *Always part-time students* refers to students who were enrolled part time during the entire enrollment duration. *Mixed full-time and part-time enrollment intensity* indicates a change in enrollment status during the enrollment duration, regardless of whether they started as part-time students and subsequently changed to full-time students or vice versa. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 and 2007-08 National Postsecondary Student Aid Study (NPSAS:04 and NPSAS:08).

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## Indicator 37 Persistence and Attainment

*Of students beginning postsecondary education in 2003–04, a lower percentage of males than females had obtained a degree by June 2009 (46 vs. 52 percent). A higher percentage of males than females had no degree and were no longer enrolled in a postsecondary institution (37 vs. 35 percent).*

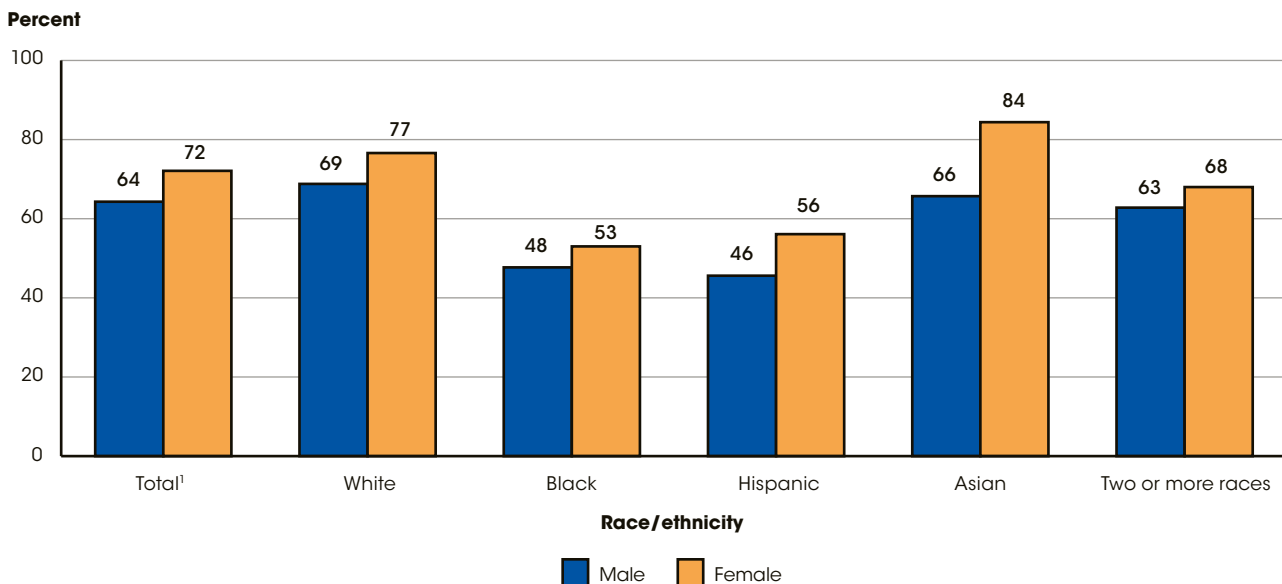
Approximately 49 percent of 2003–04 beginning postsecondary students had attained some type of postsecondary degree (i.e., certificate, associate’s degree, or bachelor’s degree) by June 2009. About 31 percent of these students had attained bachelor’s degrees, and 9 percent each had attained either a certificate or an associate’s degree. Among the remaining 51 percent who had not attained a postsecondary degree as of June 2009, about 15 percent were still enrolled in a postsecondary institution, and 36 percent were no longer enrolled.

Overall, a lower percentage of 2003–04 beginning postsecondary male students than female students had attained some type of postsecondary degree (i.e., certificate, associate’s, or bachelor’s) by June 2009 (46 vs. 52 percent). Although this pattern was also observed for White males and females (51 vs. 57 percent) and Asian males and females (48 vs. 68 percent), no measurable differences by sex were found for other racial/ethnic groups. The overall percentages of males and females who had attained bachelor’s degrees were similar;

however, a lower percentage of Asian males than Asian females had attained a bachelor’s degree by June 2009 (39 vs. 53 percent). No other measurable differences were found between females and males across racial/ethnic groups in bachelor’s degree attainment.

The percentages of students who had attained a bachelor’s degree or who had attained any postsecondary degree by June 2009 varied across racial/ethnic groups. The percentages of Black (17 percent), Hispanic (17 percent), and American Indian/Alaska Native students (14 percent) and students of two or more races (28 percent) who attained bachelor’s degrees were lower than the percentages of White (36 percent) and Asian students (46 percent) who attained a bachelor’s degree. The patterns of bachelor’s degree attainment that were observed among racial/ethnic groups were also observed among racial/ethnic groups in the attainment of any type of postsecondary degree (i.e., certificate, associate’s, or bachelor’s).

**Figure 37-1. Percentage of 2003–04 full-time, beginning postsecondary students who first attended a 4-year institution and attained a bachelor’s degree by June 2009, by race/ethnicity and sex: 2009**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Reporting standards for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Data weighted by WTA000. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/06/09).



Among males, the percentages of Black (17 percent) and Hispanic (16 percent) students who attained bachelor's degrees were lower than the percentages of White students (35 percent), Asian students (39 percent), and students of two or more races (27 percent) who attained bachelor's degrees. The percentages of American Indian/Alaska Native students (20 percent) and students of two or more races attaining bachelor's degrees were also lower than the percentage of Asian students attaining bachelor's degrees. In terms of overall degree attainment among males, the percentages of Black (35 percent) and Hispanic (38 percent) males attaining any postsecondary degree were lower than the percentages of White (51 percent) and Asian (48 percent) males attaining any postsecondary degree. The racial/ethnic patterns of differences in the attainment of any postsecondary degree that were observed among males were also observed among females.

Overall, the percentage of 2003–04 beginning postsecondary male students who did not persist in their education (i.e., had no degree and were no longer enrolled in a postsecondary institution by June 2009) was higher than that of their female peers (37 vs. 35 percent). This pattern was also observed between White males and White females. However, no measurable differences were observed between males and females of any other racial/ethnic group.

The percentages of students who did not persist in postsecondary education through June 2009 varied across racial/ethnic groups. Some 23 percent of Asian students did not persist in postsecondary education, which was lower than the percentages of nonpersisting Black (43 percent), American Indian/Alaska Native (43 percent), Hispanic (42 percent), and White students (33 percent) and of nonpersisting students of two or more races (34 percent). The percentages of White students and students of two or more races who did not persist were also lower than the percentages of Black and

Hispanic students. No other measurable differences in the percentages of students who did not persist in postsecondary education were observed across racial/ethnic groups.

Among males, 24 percent of Asian students did not persist in postsecondary education, which was lower than the percentages of nonpersisting males who were Black (45 percent), Hispanic (44 percent), White (35 percent), and of two or more races (41 percent). A lower percentage of White males than of Black and Hispanic males did not persist in postsecondary education. The overall male patterns of differences in postsecondary persistence among racial/ethnic groups were similar for females. In addition, the percentage of nonpersisting females was lower for those of two or more races (29 percent) than for Black females (42 percent) and lower for Asian females (22 percent) than for American Indian/Alaska Native females (50 percent).

For the subgroup of 2003–04 full-time beginning postsecondary students who first attended a 4-year institution, a lower percentage of males than females had attained a bachelor's degree by June 2009 (64 vs. 72 percent). Across racial/ethnic groups, the percentages of Black (51 percent) and Hispanic (52 percent) full-time students at 4-year institutions who attained bachelor's degrees were lower than the percentages of students of two or more races (66 percent), White students (73 percent), and Asian students (76 percent) who attained bachelor's degrees. The same patterns of attainment across race/ethnicity were observed among both males and females, with a few exceptions. The percentages of Black males and males of two or more races attaining bachelor's degrees were not measurably different, and the percentages of Black and Hispanic females who attained bachelor's degrees were not measurably different from the percentage of females of two or more races who attained bachelor's degrees.

## Technical Notes

Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.

**Table 37-1. Percentage distribution of persistence and attainment by June 2009 of 2003–04 beginning postsecondary students by highest degree attained, sex, and race/ethnicity: 2009**

Sex and race/ethnicity	Persistence and attainment by June 2009						
	Total	No degree, not enrolled	No degree, still enrolled	Highest degree attained			
				Total	Certificate	Associate's degree	Bachelor's degree
<b>Total<sup>1</sup></b>	<b>100.0</b>	<b>35.6</b>	<b>15.0</b>	<b>49.3</b>	<b>9.4</b>	<b>9.3</b>	<b>30.6</b>
<b>Sex</b>							
Male	100.0	37.1	16.4	46.4	7.3	9.1	30.0
Female	100.0	34.5	14.0	51.5	11.0	9.5	31.1
<b>Race/ethnicity</b>							
White	100.0	33.4	12.7	54.0	7.7	10.1	36.2
Black	100.0	42.7	20.4	36.8	12.4	7.7	16.7
Hispanic	100.0	42.2	17.0	40.8	15.6	8.3	16.8
Asian	100.0	23.1	18.9	57.9	4.5	7.7	45.7
Native Hawaiian/ Pacific Islander	100.0	29.8 †	‡	46.4 †	‡	‡	38.8 †
American Indian/ Alaska Native	100.0	42.5	19.5	38.0	12.8 †	10.8 †	14.4
Two or more races	100.0	33.7	19.4	46.9	9.2	9.9	27.8
<b>Race/ethnicity by sex</b>							
<b>Male</b>							
White	100.0	35.3	14.1	50.6	6.1	9.5	35.0
Black	100.0	44.5	20.2	35.3	9.4	9.3	16.6
Hispanic	100.0	43.7	18.8	37.5	13.0	8.1	16.3
Asian	100.0	24.2	27.5	48.3	3.3 †	6.3	38.7
Native Hawaiian/ Pacific Islander	100.0	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	31.6 †	‡	46.3	18.0 †	‡	20.2 †
Two or more races	100.0	40.7	18.5	40.7	‡	10.1 †	26.5
<b>Female</b>							
White	100.0	31.9	11.5	56.6	9.0	10.5	37.1
Black	100.0	41.7	20.5	37.7	14.1	6.8	16.8
Hispanic	100.0	41.1	15.9	43.0	17.3	8.5	17.1
Asian	100.0	22.1	10.1	67.9	5.7	9.3	52.9
Native Hawaiian/ Pacific Islander	100.0	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	49.5	17.9 †	32.7	9.4 †	‡	10.7 †
Two or more races	100.0	28.9	20.0	51.1	12.6	9.8	28.7

† Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Detail may not sum to totals because of rounding. Data weighted by WTA000. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/06/09).

**Table 37-2. Percentage of 2003–04 full-time, beginning postsecondary students who first attended a 4-year institution and percentage distribution of their persistence and attainment status by June 2009, by sex and race/ethnicity: 2009**

Sex and race/ethnicity	Persistence and attainment by 2009						
	Total	No degree, not enrolled	No degree, still enrolled	Highest degree attained			
				Total	Certificate	Associate's degree	Bachelor's degree
<b>Total<sup>1</sup></b>	<b>100.0</b>	<b>19.7</b>	<b>6.7</b>	<b>73.7</b>	<b>1.1</b>	<b>3.9</b>	<b>68.7</b>
<b>Sex</b>							
Male	100.0	21.9	8.1	69.9	0.7 !	4.9	64.3
Female	100.0	17.9	5.5	76.6	1.4	3.1	72.1
<b>Race/ethnicity</b>							
White	100.0	17.0	4.8	78.2	1.0	4.1	73.1
Black	100.0	31.0	12.5	56.5	2.3 !	3.3 !	50.9
Hispanic	100.0	30.2	12.6	57.2	1.4 !	4.1 !	51.7
Asian	100.0	12.8	9.1	78.1	#	2.3 !	75.8
Native Hawaiian/ Pacific Islander	100.0	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	‡	‡	‡	‡	‡	‡
Two or more races	100.0	20.9	8.1 !	79.2	‡	‡	65.6
<b>Race/ethnicity by sex</b>							
<b>Male</b>							
White	100.0	19.8	5.8	74.4	0.5 !	5.1	68.8
Black	100.0	33.9	14.2	51.9	‡	3.7 !	47.7
Hispanic	100.0	31.8	16.1	52.2	‡	4.5 !	45.6
Asian	100.0	16.2	13.6	70.2	#	4.5 !	65.7
Native Hawaiian/ Pacific Islander	100.0	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	‡	‡	‡	‡	‡	‡
Two or more races	100.0	18.1 !	9.6 !	72.3	‡	‡	62.8
<b>Female</b>							
White	100.0	14.8	4.0	81.2	1.3 !	3.3	76.6
Black	100.0	29.2	11.4	59.4	3.4 !	3.0 !	53.0
Hispanic	100.0	29.1	10.1	60.8	1.0 !	‡	56.1
Asian	100.0	9.8 !	5.2 !	84.9	#	‡	84.4
Native Hawaiian/ Pacific Islander	100.0	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native	100.0	‡	‡	‡	‡	‡	‡
Two or more races	100.0	23.0 !	7.0 !	70.0	‡	‡	67.5

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Detail may not sum to totals because of rounding. Data weighted by WTA000. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/06/09).

## Indicator 38

# Reasons for Leaving

*A higher percentage of 2003–04 beginning postsecondary male students than female students left college by 2004 without completing a degree or certificate program (17 vs. 15 percent). Among students who left without completing, a higher percentage of males than females reported financial reasons for leaving (40 vs. 23 percent).*

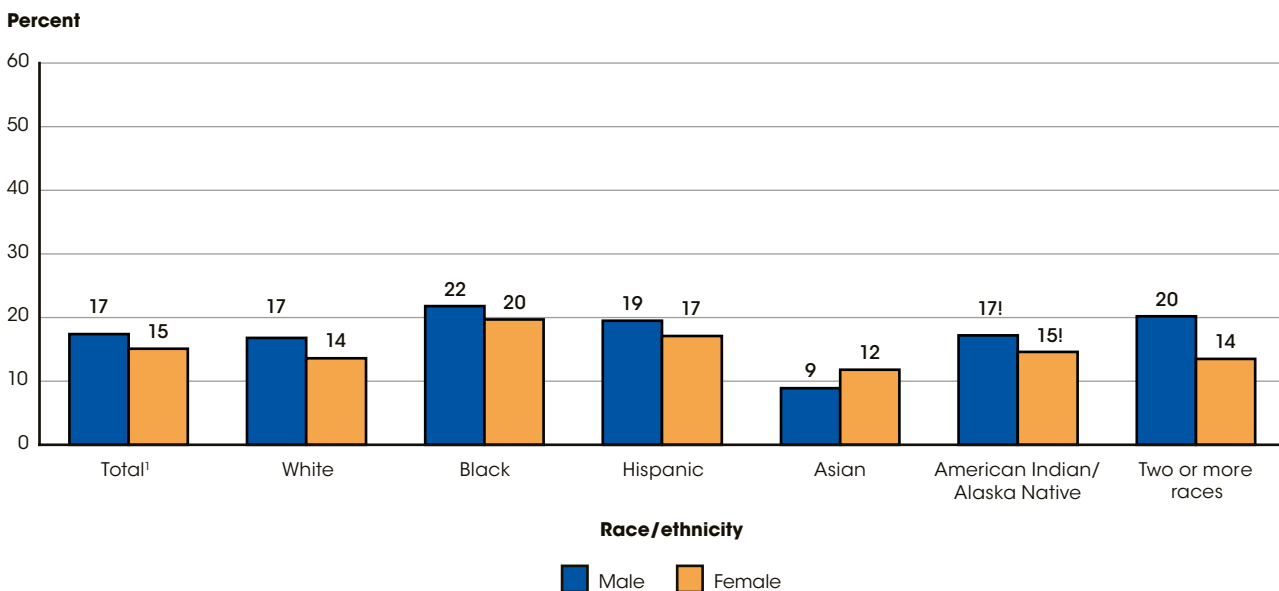
About 16 percent of students who began at a postsecondary institution in 2003–04 had left college by 2004 without completing a degree or certificate program. A higher percentage of male than female students left college without completing (17 vs. 15 percent). The same pattern was observed between White males and White females (17 vs. 14 percent); however, no measurable differences were found between males and females within other racial/ethnic groups.

The percentage of 2003–04 beginning postsecondary students who left college by 2004 without completing a degree or certificate program varied by race/ethnicity. A lower percentage of White students left college without completing a degree or certificate program (15 percent) than did Hispanic (18 percent) and Black students (20 percent). In addition, the percentage of Asian students who left college without completing (10 percent) was lower than the percentages of students of two or more races (16 percent), White, Hispanic, and Black students. Among male 2003–04 beginning postsecondary students, a lower percentage of White students than Black students

left by 2004 without completing (17 vs. 22 percent); and the percentage of Asian students who left without completing (9 percent) was lower than the percentages of White students, Hispanic students (19 percent), students of two or more races (20 percent), and Black students. Among females, a lower percentage of White students (14 percent) than Hispanic students (17 percent) and Black students (20 percent) left without completing; and the percentage of Asian students who left without completing (12 percent) was lower than the corresponding percentage of Black students.

Among 2003–04 beginning postsecondary students who left in 2004 without completing a degree or certificate program, 31 percent reported that they left their institution due to financial reasons. A higher percentage of males than females reported financial reasons for leaving (40 vs. 23 percent). In addition, the percentage differences between males and females who left due to financial reasons followed a similar pattern within the racial/ethnic groups of White students, Hispanic students, and students of two or more races. For example,

**Figure 38-1. Percentage of 2003–04 beginning postsecondary students who left school by 2004 without completing a program, by race/ethnicity and sex: 2004**



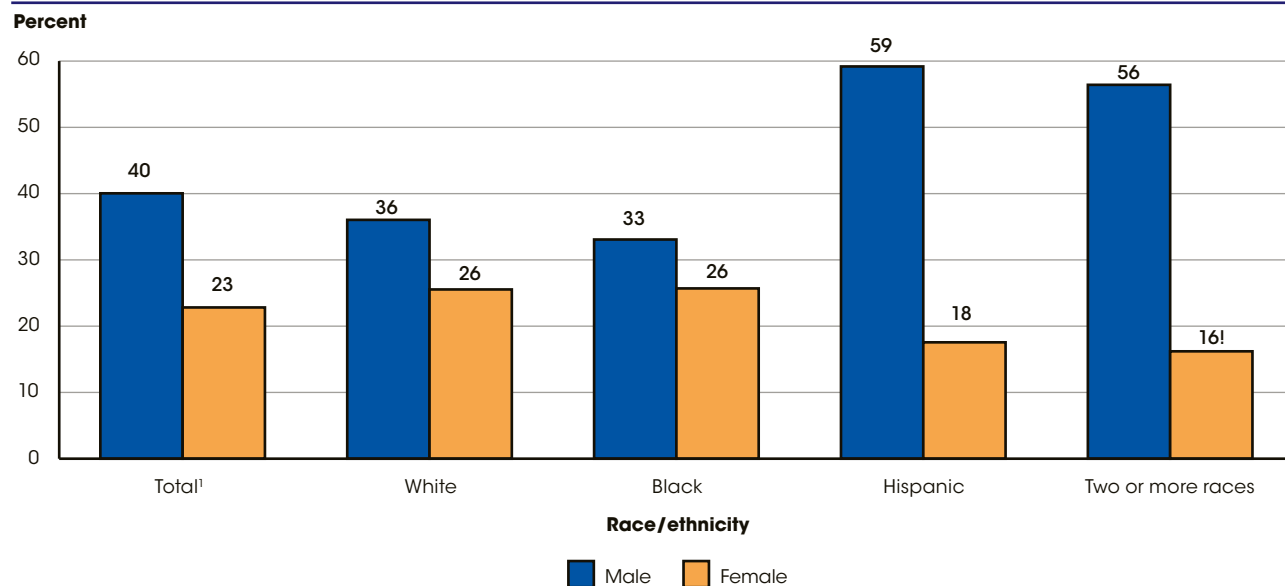
<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

**Figure 38-2. Percentage of 2003–04 beginning postsecondary students who left school by 2004 without completing a program and reported financial reasons for leaving, by race/ethnicity and sex: 2004**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Asians, Native Hawaiians/Pacific Islanders, and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

approximately 59 percent of Hispanic males reported financial reasons for leaving, compared with 18 percent of Hispanic females.

A lower percentage of Asian students (19 percent) than Hispanic students (35 percent) and students of two or more races (38 percent) reported leaving for financial

reasons. Among male students, the percentages of Blacks (33 percent) and Whites (36 percent) who reported financial reasons for leaving were lower than the corresponding percentages of students of two or more races (56 percent) and Hispanics (59 percent). No measurable differences were found by race/ethnicity among female students.

## Technical Notes

This indicator uses a specific variable from the 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06) that indicates a student's enrollment or departure status at the end of the first year

of enrollment (i.e., 2004). Therefore, this indicator does not capture the enrollment or departure status of students who left after their first year.

**Table 38-1. Percentage of 2003-04 beginning postsecondary students who left school by 2004 without completing a program and the reported reasons for leaving, by sex and race/ethnicity: 2004**

Sex and race/ethnicity	Percentage who left in 2004	Reasons for leaving without completing							
		Academic problems	Scheduling problems	Not satisfied	Financial reasons	Family responsibilities	Personal reasons	Finished classes	Other reason
<b>Total<sup>1</sup></b>	<b>16.0</b>	<b>13.0</b>	<b>8.0</b>	<b>16.7</b>	<b>30.8</b>	<b>21.0</b>	<b>53.4</b>	<b>3.6</b>	<b>24.0</b>
<b>Sex</b>									
Male	17.3	9.7	8.9	18.1	40.0	21.4	42.7	1.6 !	29.9
Female	15.1	15.9	7.2	15.6	22.8	20.8	62.6	5.3	19.0
<b>Race/ethnicity</b>									
White	15.0	11.2	11.0	15.4	30.7	19.3	52.2	4.3	24.2
Black	20.5	10.3	3.7 !	19.8	28.7	24.7	46.0	2.8	31.2
Hispanic	18.0	26.0	6.0	23.9	35.2	19.1	53.9	2.8	12.6
Asian	10.4	‡	‡	5.0 !	18.6 !	28.9 !	89.4	‡	26.2
Native Hawaiian/Pacific Islander	22.7 !	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	15.6 !	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	16.4	‡	#	‡	37.7	30.2	63.3	#	34.8
<b>Race/ethnicity by sex</b>									
<b>Male</b>									
White	16.8	10.9	13.9	17.5	36.0	18.8	43.5	2.1 !	32.0
Black	21.7	7.0 !	‡	24.6	33.1	35.6	28.2	#	39.1
Hispanic	19.5	11.7 !	‡	22.4	59.2	16.8	39.6	#	12.1
Asian	8.9	‡	#	‡	38.0	‡	87.1	‡	25.7 !
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	17.2 !	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	20.2	#	#	‡	56.4	22.3 !	60.4	#	34.4
<b>Female</b>									
White	13.6	11.5	8.2	13.5	25.5	19.7	60.7	6.4	16.7
Black	19.7	12.5	5.7 !	16.5	25.7	17.3	58.1	4.7	25.9
Hispanic	17.1	36.6	8.9	25.0	17.6	20.8	64.4	4.9	12.9
Asian	11.8	‡	‡	‡	‡	33.4 !	91.0	‡	26.6 !
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	14.5 !	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	13.5	‡	#	‡	16.2 !	39.3 !	66.6	#	35.4 !

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Respondents were able to choose more than one reason for leaving school. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

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## Indicator 39

# Remedial Coursework and Other Academic Experiences

As of 2006, higher percentages of male than female 2003–04 first-year undergraduates reported that they had received an incomplete (17 vs. 15 percent), repeated a course for a higher grade (25 vs. 22 percent), or withdrawn from a course after the add/drop deadline (33 vs. 29 percent). However, the percentage of male students (30 percent) who had ever changed their major was not measurably different from that of female students (32 percent).

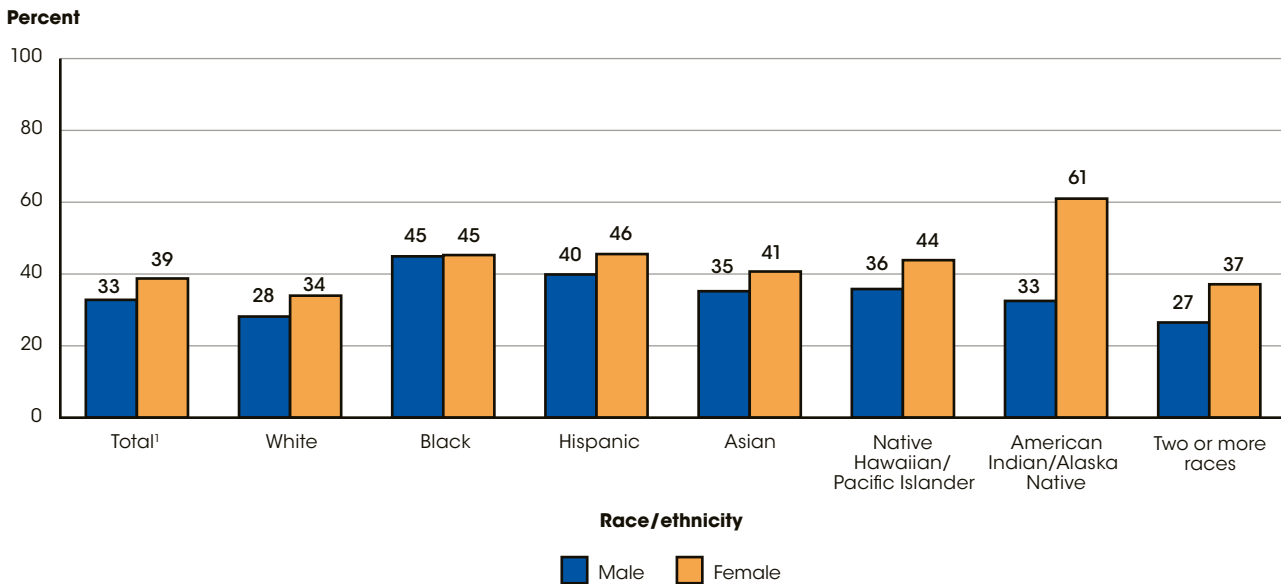
In 2007–08, some 36 percent of first-year undergraduates in all postsecondary institutions reported that they had taken a remedial course. Specifically, 29 percent of students at 4-year institutions had taken a remedial course, as had 41 percent at 2-year institutions and 28 percent at less-than-2-year institutions.

Overall, the percentage of first-year undergraduates who had taken a remedial course varied by sex. In 2007–08, a lower percentage of male than female first-year undergraduates had taken a remedial course (33 vs. 39 percent). The pattern of lower percentages of males than females taking remedial courses was observed for White, Hispanic, and American Indian/Alaska Native students, as well as students of two or more races. For example, approximately 40 percent of male Hispanic students had taken a remedial course, compared with 46 percent of female Hispanic students.

In 2007–08, the percentage of White first-year students (31 percent) who had ever taken a remedial course was significantly lower than the percentages of students of other racial/ethnic groups who had done so, except for students of two or more races. The percentages of students of two or more races (33 percent) and Asians (38 percent) who had ever taken a remedial course were lower than the percentages of Hispanics (43 percent) and Blacks (45 percent) who had taken one.

This indicator also examines academic experiences of students from their first 2 or 3 years as undergraduates. In 2006, students in their third or fourth year of undergraduate education were asked whether they had ever changed majors, received a grade of incomplete, repeated a course for a higher grade, or withdrawn from a course after their institutions' add/drop deadline. Some 16 percent reported that they had received a grade of incomplete, 23 percent reported that they had repeated a

**Figure 39-1. Percentage of first-year undergraduates who reported ever taking a remedial course, by race/ethnicity and sex: Academic year 2007–08**



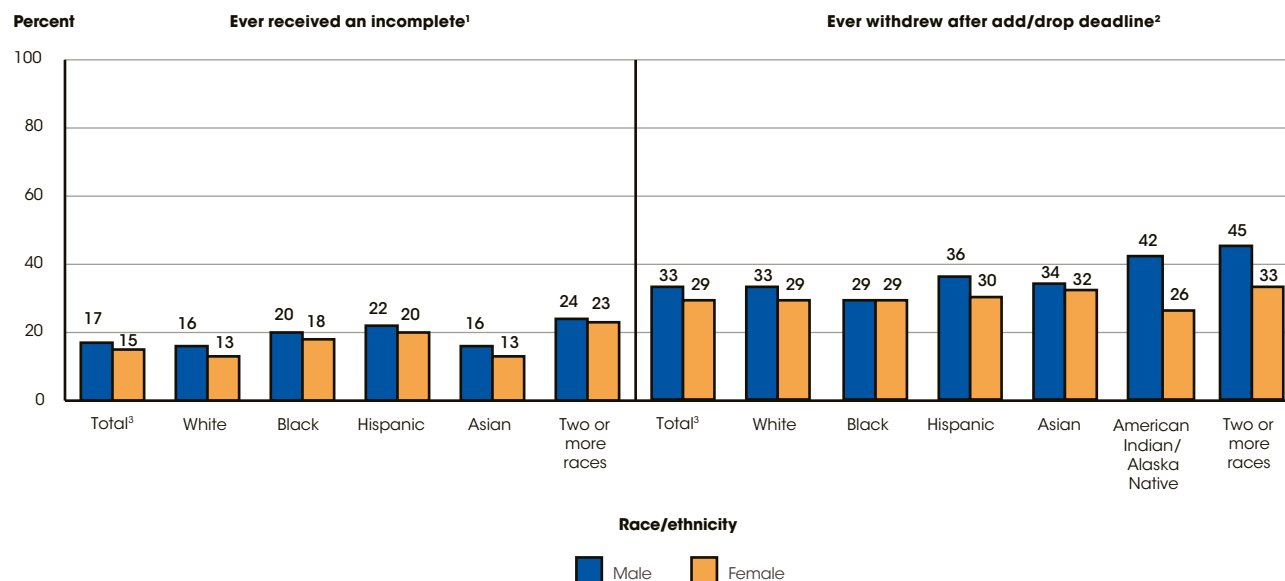
<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).



**Figure 39-2. Percentage of 2003–04 beginning postsecondary undergraduates who reported ever receiving an incomplete and ever withdrawing after the add/drop deadline, by race/ethnicity and sex: 2006**



<sup>1</sup> Reporting standards for Native Hawaiian/Pacific Islander males and females and American Indian/Alaska Native males were not met; therefore, data for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives are not shown in the figure.

<sup>2</sup> Reporting standards for Native Hawaiians/Pacific Islanders were not met; therefore, data for this group are not shown in the figure.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the figure.

Note: Academic experiences of students are from their first 2 or 3 years as undergraduates. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

course for a higher grade, 31 percent reported that they had changed their major, and 31 percent reported that they had withdrawn from a course after the institutions' add/drop deadline.

Higher percentages of males than females had ever received a grade of incomplete (17 vs. 15 percent), had ever repeated a course for a higher grade (25 vs. 22 percent), or had ever withdrawn after the add/drop deadline (33 vs. 29 percent). This pattern was also observed among White students. No measurable differences between males and females within other racial/ethnic groups were observed in terms of the percentages of students who reported these three academic experiences. In addition, the percentage of males (30 percent) who had ever changed their major was not measurably different from the percentage of females (32 percent) who had done so; nor were there any

measurable differences within each racial/ethnic group between males and females who had ever changed their major.

The academic experiences of 2003–04 beginning postsecondary undergraduates varied by race/ethnicity. Specifically, lower percentages of Black and Hispanic undergraduates (29 percent each) than White undergraduates (32 percent) had changed their major. Higher percentages of Hispanic (21 percent) and Black students (19 percent) than Asian (15 percent) and White students (14 percent) had received an incomplete. Compared with White students (20 percent), higher percentages of Black (30 percent), Asian (30 percent), and Hispanic students (27 percent) had repeated a course for a higher grade.

**Table 39-1. Percentage of first-year undergraduates who reported ever taking a remedial course, by level of institution, sex, and race/ethnicity: Academic years 2003-04 and 2007-08**

Sex and race/ethnicity	2003-04				2007-08			
	All institutions	4-year	2-year	Less-than-2-year	All institutions	4-year	2-year	Less-than-2-year
<b>Total<sup>1</sup></b>	<b>34.7</b>	<b>27.1</b>	<b>39.9</b>	<b>25.2</b>	<b>36.2</b>	<b>28.8</b>	<b>40.9</b>	<b>27.8</b>
Sex								
Male	32.9	24.3	38.4	24.5	32.8	24.1	37.4	31.1
Female	36.0	29.4	41.1	25.4	38.8	32.4	43.6	26.6
Race/ethnicity								
White	31.7	25.0	36.2	25.5	31.3	24.2	35.8	24.0
Black	41.2	36.3	46.0	23.8	45.1	38.1	50.2	31.4
Hispanic	37.5	27.9	44.6	25.4	43.3	38.4	48.6	29.5
Asian	39.6	28.8	46.5	32.7	38.0	27.9	42.8	36.5
Native Hawaiian/ Pacific Islander	40.8	37.0	44.0	29.3	40.0	20.8 !	44.9	30.4
American Indian/ Alaska Native	44.8	25.6	54.6	20.3	46.8	35.6	53.2	33.4
Two or more races	33.9	26.0	40.3	22.6	32.8	27.3	36.8	17.5
Race/ethnicity by sex								
Male								
White	30.2	22.3	35.3	25.7	28.2	20.2	32.7	24.6
Black	39.8	33.0	44.8	19.9	44.9	36.5	49.7	34.5
Hispanic	36.5	26.2	43.5	23.7	39.9	31.6	44.9	33.7
Asian	36.0	28.3	40.1	44.0	35.2	21.9	40.9	36.1
Native Hawaiian/ Pacific Islander	40.4	‡	47.6	‡	35.8	‡	40.9	‡
American Indian/ Alaska Native	33.3	24.0	40.2	‡	32.5	28.3	34.0	‡
Two or more races	30.5	17.7	38.8	23.3	26.5	19.0	30.8	‡
Female								
White	32.9	27.3	36.9	25.3	34.0	27.6	38.6	23.8
Black	42.0	38.5	46.7	25.0	45.3	39.0	50.5	30.2
Hispanic	38.2	29.3	45.5	26.1	45.6	42.8	51.2	27.4
Asian	42.6	29.2	51.6	27.4	40.7	33.1	44.8	36.7
Native Hawaiian/ Pacific Islander	41.0	‡	41.2	‡	43.9	‡	48.6	‡
American Indian/ Alaska Native	50.8	26.7 !	61.3	25.7	61.0	44.6	71.6	27.1 !
Two or more races	36.4	31.9	41.5	22.4	37.1	33.0	41.3	16.9

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 and 2007-08 National Postsecondary Student Aid Study (NPSAS:04 and NPSAS:08).

**Table 39-2. Percentage of 2003–04 beginning postsecondary undergraduates who reported various academic experiences, by sex and race/ethnicity: 2006**

Sex and race/ethnicity	Ever changed major	Ever received an incomplete	Ever repeated a course for a higher grade	Ever withdrew after add/drop deadline
<b>Total<sup>1</sup></b>	<b>31.2</b>	<b>16.1</b>	<b>23.0</b>	<b>31.0</b>
Sex				
Male	30.4	17.3	25.0	33.2
Female	31.7	15.2	21.5	29.4
Race/ethnicity				
White	32.5	14.2	20.1	30.7
Black	28.6	19.1	29.6	28.9
Hispanic	28.6	20.5	26.7	32.3
Asian	28.1	14.8	29.8	32.6
Native Hawaiian/Pacific Islander	‡	16.8 !	23.7 !	17.2 !
American Indian/Alaska Native	27.7	15.7 !	‡	31.8
Two or more races	29.2	23.7	23.4	37.9
Race/ethnicity by sex				
Male				
White	31.3	15.6	23.2	32.8
Black	29.1	20.2	28.0	29.3
Hispanic	28.0	22.0	29.0	36.2
Asian	28.2	16.3	32.0	33.7
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	38.1 !	‡	‡	41.6 !
Two or more races	24.4	24.0 !	17.1	44.8
Female				
White	33.3	13.1	17.8	29.1
Black	28.3	18.5	30.5	28.6
Hispanic	29.0	19.6	25.2	29.9
Asian	28.0	13.4	27.7	31.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡
American Indian/Alaska Native	23.0 !	19.9 !	9.2 !	25.7
Two or more races	32.0	23.4	27.8	33.0

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. Either there are too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Race categories exclude persons of Hispanic ethnicity. Academic experiences of students are from their first 2 or 3 years as undergraduates. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

## Indicator 40 Academic and Social Integration

Among 2003–04 beginning postsecondary students who had recently graduated from high school, a lower percentage of males (72 percent) than females (77 percent) reported that they sometimes or often met with an advisor during their first year of college. Also, a lower percentage of male (33 percent) than female students (37 percent) reported that they sometimes or often participated in school clubs in their first year. In contrast, a higher percentage of male (35 percent) than female students (23 percent) participated in sports in their first year.

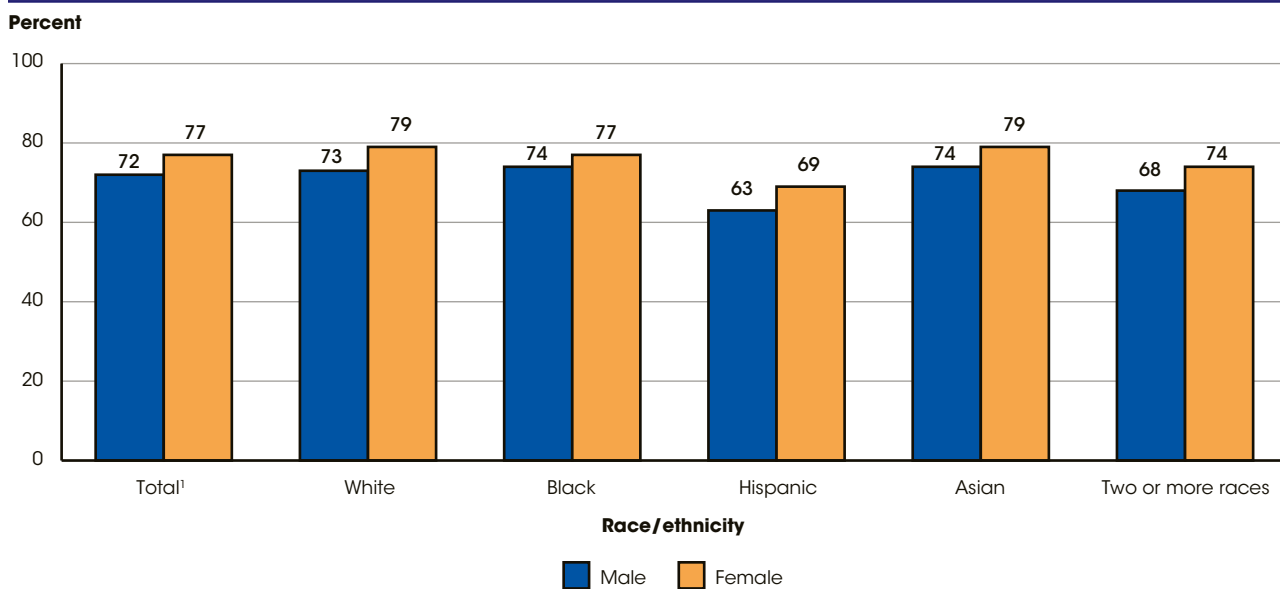
Approximately three quarters (75 percent) of 2003–04 beginning postsecondary students who had recently graduated from high school reported that they sometimes or often met with an advisor during their first year of college. A lower percentage of male (72 percent) than female (77 percent) students reported such a meeting during their first year. This difference was also observed for White male and female students. No measurable differences by sex were observed for other racial/ethnic groups.

A lower percentage of Hispanic (66 percent) than White (76 percent), Black (76 percent), and Asian (77 percent) beginning postsecondary students reported that they had met with an advisor during their first year of college. This pattern across racial/ethnic groups was also observed separately for male and female students.

Of 2003–04 beginning postsecondary students who had recently graduated from high school, 35 percent reported that they sometimes or often participated in school clubs during their first year of college. A lower percentage of male (33 percent) than female students (37 percent) participated in school clubs in their first year. This pattern was also observed for White male and female students. No measurable differences by sex were observed for other racial/ethnic groups.

Lower percentages of Hispanics (28 percent) and Blacks (31 percent) than Whites (36 percent), students of two or more races (40 percent), and Asians (46 percent) reported that they had participated in school clubs in their first year of college. Similar patterns across racial/ethnic groups were observed for females. For males, lower percentages of Hispanic (28 percent), Black (29 percent), and White

**Figure 40-1. Percentage of recent high school graduates attending 2- or 4-year postsecondary institutions who reported meeting with an advisor sometimes or often during their first year, by race/ethnicity and sex: 2003–04**

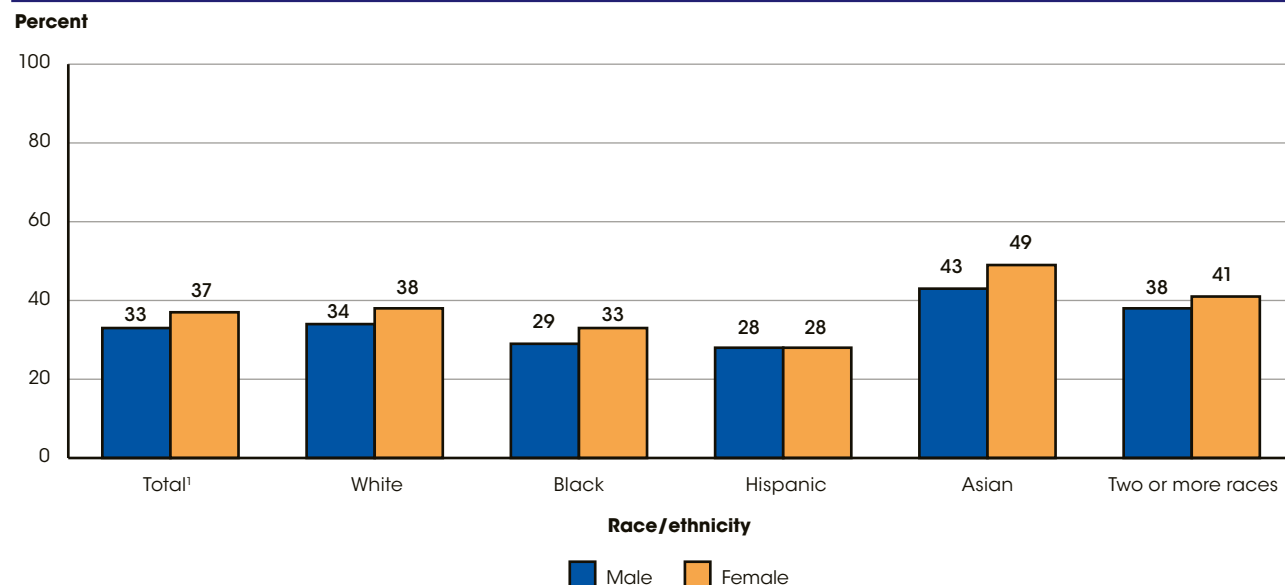


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. *Recent high school graduates* refers to students who graduated from high school in 2003 or 2004. Reporting standards for Native Hawaiian/Pacific Islander students and American Indian/Alaska Native males were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

**Figure 40-2. Percentage of recent high school graduates attending 2- or 4-year postsecondary institutions who reported participation in school clubs sometimes or often during their first year, by race/ethnicity and sex: 2003-04**

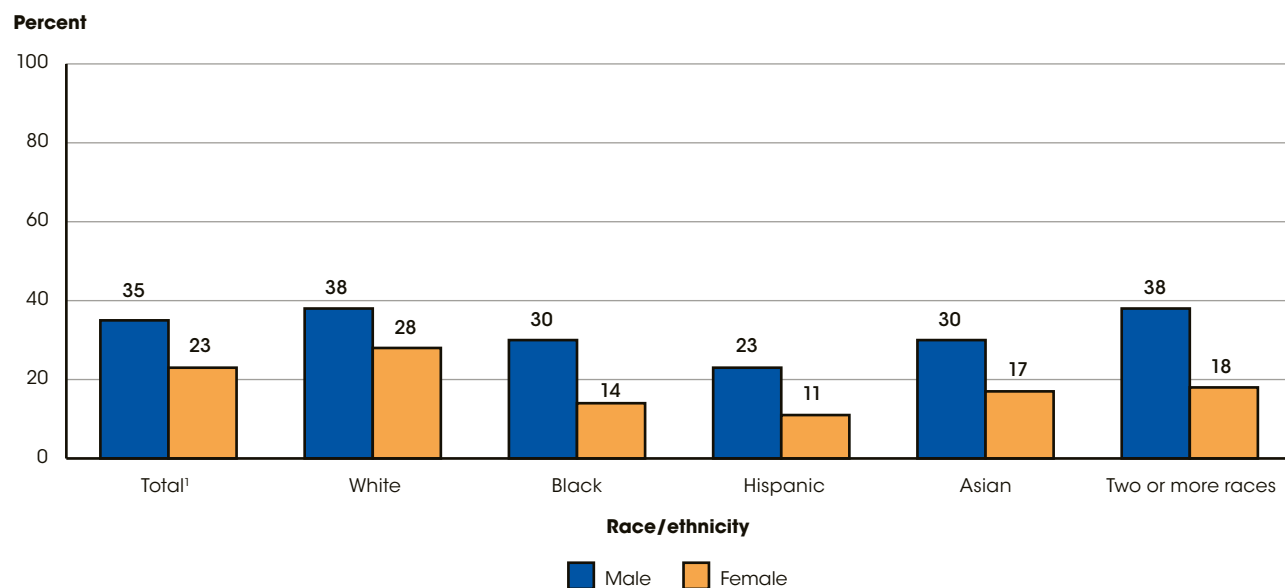


<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. *Recent high school graduates* refers to students who graduated from high school in 2003 or 2004. Reporting standards for Native Hawaiian/Pacific Islander students and American Indian/Alaska Native males were not met; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

**Figure 40-3. Percentage of recent high school graduates attending 2- or 4-year postsecondary institutions who reported participation in school sports sometimes or often during their first year, by race/ethnicity and sex: 2003-04**



<sup>1</sup>Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. *Recent high school graduates* refers to students who graduated from high school in 2003 or 2004. Reporting standards for Native Hawaiians/Pacific Islanders and American Indians/Alaska Natives were not met; therefore, data for these groups are not shown in the figure. Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

students (34 percent) participated in clubs than did Asian students (43 percent).

Among 2003–04 beginning postsecondary students who had recently graduated from high school, 28 percent reported that they sometimes or often participated in sports during their first year of college. A higher percentage of male (35 percent) than female students (23 percent) participated in sports in their first year. This pattern by sex was also observed for Whites, Blacks, Hispanics, Asians, and students of two or more races.

Lower percentages of Hispanics (17 percent), Blacks (21 percent), Asians (24 percent), and students of two or more races (26 percent) than Whites (32 percent) reported that they had participated in sports in their first year of college. In addition, the percentage of Hispanics who participated in sports was lower than the percentages of beginning Blacks, Asians, and students of two or more races. This pattern was generally observed for females across racial/ethnic groups, except there was no difference between Hispanics and Blacks. Among male students, lower percentages of beginning Hispanics (23 percent) and Blacks (30 percent) than beginning Whites (38 percent) participated in sports.

## Technical Notes

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*Recent high school graduates* refers to students who graduated from high school in year 2003 or 2004. Data in this indicator are for students who enrolled at 2- or 4-year

institutions any time between July 1, 2003, and June 30, 2004.

**Table 40-1. Percentage of beginning postsecondary students attending 2- or 4-year institutions who reported participation in various academic activities sometimes or often during their first year, by recent high school graduate status, activity, sex, and race/ethnicity: 2003-04**

Sex and race/ethnicity	Recent high school graduates <sup>1</sup>				Other beginning postsecondary students <sup>2</sup>			
	Had informal contact with faculty	Talked with faculty about academic matters outside of class	Met with an advisor	Attended study groups	Had informal contact with faculty	Talked with faculty about academic matters outside of class	Met with an advisor	Attended study groups
<b>Total<sup>3</sup></b>	<b>41.4</b>	<b>79.1</b>	<b>75.0</b>	<b>58.6</b>	<b>27.6</b>	<b>62.6</b>	<b>56.7</b>	<b>39.2</b>
Sex								
Male	41.8	77.2	72.1	54.7	30.3	63.5	57.4	41.3
Female	41.0	80.7	77.4	61.8	25.6	62.0	56.1	37.6
Race/ethnicity								
White	41.2	80.0	76.4	59.1	25.4	62.7	59.2	37.0
Black	45.6	79.6	75.9	57.0	31.1	65.3	57.0	47.2
Hispanic	36.1	73.4	66.1	52.2	29.2	57.3	46.7	38.0
Asian	45.2	81.5	76.7	66.1	36.5	69.3	60.4	48.5
Native Hawaiian/Pacific Islander	64.9	93.4	71.4	80.8	‡	‡	‡	‡
American Indian/Alaska Native	52.1	86.9	70.0	49.4	20.1 !	57.4	48.2 !	31.6 !
Two or more races	38.9	76.0	71.5	61.8	28.9 !	72.2	67.9	39.5
Race/ethnicity by sex								
Male								
White	42.1	77.4	73.3	54.4	28.9	63.0	61.2	40.8
Black	45.7	77.6	74.3	55.0	29.6	65.5	53.3	44.6
Hispanic	35.3	72.8	62.7	49.2	35.6	60.7	44.7	40.8
Asian	45.3	83.5	74.2	64.1	36.6	65.9	59.8	48.5
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	35.8	76.5	68.3	60.1	33.3 !	77.9	75.3	34.5 !
Female								
White	40.5	82.2	79.1	63.1	22.8	62.4	57.8	34.3
Black	45.5	81.1	77.1	58.4	31.9	65.2	59.2	48.7
Hispanic	36.7	73.8	68.7	54.5	25.1	55.0	47.9	36.2
Asian	45.0	79.5	79.3	68.1	36.3	72.5	60.9	48.6
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native	54.5	93.0	72.2	52.3	‡	72.6	52.1 !	34.1 !
Two or more races	40.9	75.7	73.6	63.0	23.2 !	64.8	58.1	46.1

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Recent high school graduates refers to students who graduated from high school in 2003 or 2004.

<sup>2</sup> Estimates include students who graduated prior to 2003 as well as those who did not receive a high school degree or certificate and those who were homeschooled.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003-04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).

**Table 40-2. Percentage of recent high school graduates attending 2- or 4-year postsecondary institutions who reported participation in various social activities sometimes or often during their first year, by activity, sex, and race/ethnicity: 2003–04**

Sex and race/ethnicity	Recent high school graduates <sup>1</sup>		
	Attended fine arts activities	Participated in school clubs	Participated in sports
<b>Total<sup>2</sup></b>	<b>40.7</b>	<b>35.4</b>	<b>28.5</b>
Sex			
Male	37.5	33.4	35.0
Female	43.3	37.1	23.1
Race/ethnicity			
White	42.8	36.3	32.5
Black	38.8	31.3	20.8
Hispanic	31.9	28.3	16.5
Asian	40.9	45.6	23.5
Native Hawaiian/Pacific Islander	30.6!	29.5!	24.7!
American Indian/Alaska Native	36.5	40.3	24.8!
Two or more races	43.4	39.5	25.8
Race/ethnicity by sex			
Male			
White	39.1	33.8	38.3
Black	38.0	28.9	29.6
Hispanic	31.8	28.2	23.0
Asian	35.1	42.6	29.7
Native Hawaiian/Pacific Islander	‡	‡	‡
American Indian/Alaska Native	‡	‡	‡
Two or more races	33.3	37.8	38.1
Female			
White	45.8	38.5	27.6
Black	39.3	33.0	14.1
Hispanic	32.1	28.4	11.4
Asian	46.5	48.5	17.5
Native Hawaiian/Pacific Islander	‡	‡	‡
American Indian/Alaska Native	37.4	38.5	‡
Two or more races	50.1	40.6	17.8

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> *Recent high school graduates* refers to students who graduated from high school in 2003 or 2004.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Data in this indicator are for students who enrolled at 2- or 4-year institutions any time between July 1, 2003, and June 30, 2004. Race categories exclude persons of Hispanic ethnicity. Data weighted by WTA000.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, First Follow-up (BPS:04/06).



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## Indicator 41

# College Student Employment

*In 2010, a lower percentage of male than female undergraduates were employed (70 vs. 73 percent). Lower percentages of males than females were employed among Whites (76 vs. 79 percent), Blacks (57 vs. 62 percent), and Asians (49 vs. 52 percent).*

In 2010, approximately 71 percent of undergraduates ages 16 to 24 were employed. About 19 percent worked 35 or more hours per week, 31 percent worked 20 to 34 hours per week, and 21 percent worked less than 20 hours per week. The employment status of undergraduates varied according to students' sex and race/ethnicity.

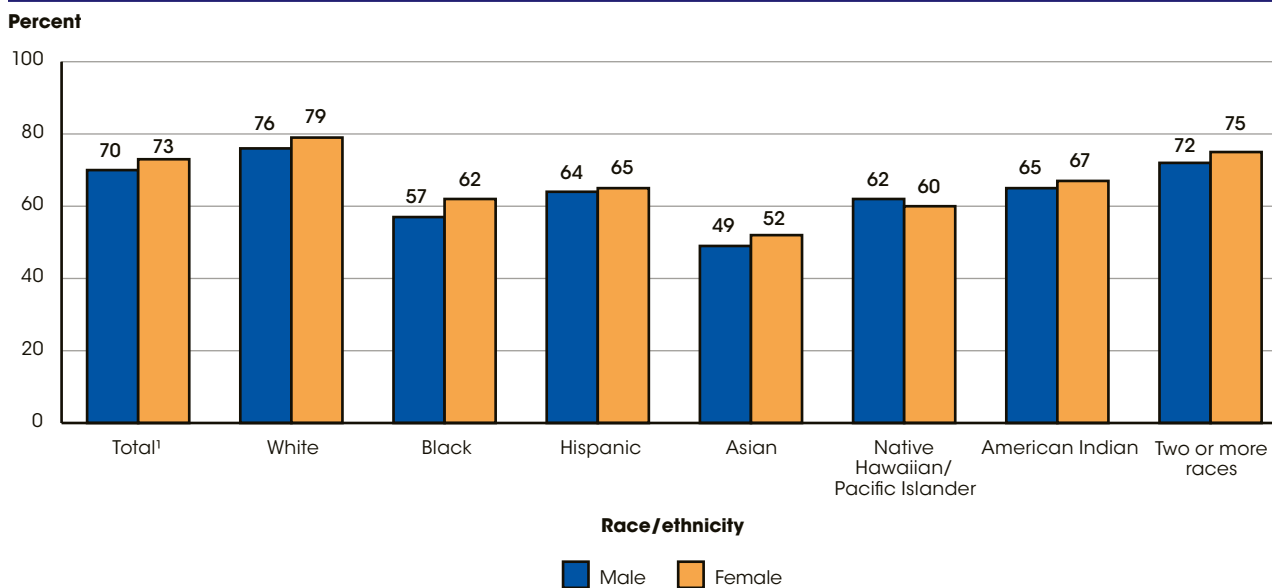
In 2010, a lower percentage of male than female undergraduates were employed (70 vs. 73 percent). Within racial/ethnic groups, the percentage of males who were employed was lower than that of females for Whites (76 vs. 79 percent), Blacks (57 vs. 62 percent), and Asians (49 vs. 52 percent). There were no measurable differences between the employment rates of males and females among Hispanics, Native Hawaiians/Pacific Islanders, American Indians, and students of two or more races.

Higher percentages of undergraduates who were White (78 percent) and students of two or more races (73 percent) were employed in 2010 than were undergraduates from all other racial/ethnic groups. In addition, higher percentages of American Indian

(66 percent), Hispanic (64 percent), Native Hawaiian/Pacific Islander (61 percent), and Black (60 percent) undergraduates were employed than were Asian undergraduates (51 percent). White males (76 percent), males of two or more races (72 percent), American Indian males (65 percent), Hispanic males (64 percent), Native Hawaiian/Pacific Islander males (62 percent), and Black males (57 percent) were employed at higher percentages than were Asian males (49 percent). In addition, Hispanic males were employed at a higher percentage than Black males. Racial/ethnic differences in the percentages of female students employed were similar to the overall employment patterns.

In contrast to the pattern for the percentage of undergraduates employed overall, a higher percentage of male than female undergraduates (22 vs. 17 percent) worked 35 or more hours per week. Higher percentages of males than females worked 35 or more hours per week among Whites (24 vs. 17 percent), Hispanics (22 vs. 18 percent), and students of two or more races (20 vs. 15 percent). There were no measurable differences between

**Figure 41-1. Percentage of 16- to 24-year-old undergraduate college students who were employed, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Includes those who were employed but not at work during the survey week. College includes both 2- and 4-year institutions. Reporting standards for Alaska Natives were not met; therefore, data for this group are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

the percentages of males and females who worked 35 or more hours for Blacks, Asians, American Indians, and Native Hawaiians/Pacific Islanders.

In 2010, about 26 percent of undergraduates who were American Indian worked 35 or more hours per week, a higher percentage than Hispanics (20 percent), Blacks (18 percent), persons of two or more races (18 percent), Native Hawaiians/Pacific Islanders (15 percent) and Asians (11 percent). Whites (21 percent) and Hispanics (20 percent) had higher percentages of undergraduates who worked 35 or more hours per week than did Blacks (18 percent) or students of two or more races (18 percent). Among male undergraduates, Asian students had the lowest percentage of undergraduates who worked 35 or more hours per week (11 percent), with the exception that no measurable difference was found between Asian

and Native Hawaiian/Pacific Islander males. A lower percentage of Black undergraduate males (18 percent) worked 35 or more hours per week than did American Indian (27 percent), White (24 percent), and Hispanic undergraduate males (22 percent). A higher percentage of White males than Hispanic males worked 35 or more hours per week. Among female undergraduates, higher percentages of American Indians (26 percent) worked 35 or more hours per week than did Whites (17 percent), Blacks (17 percent), Hispanics (18 percent), Asians (10 percent), Native Hawaiians/Pacific Islanders (15 percent), and females of two or more races (15 percent). The percentages of female undergraduates who worked 35 or more hours per week were also higher for Whites, Blacks, Hispanics, and females of two or more races than for Asian females.

## Technical Notes

Undergraduates include individuals between the ages of 16 and 24 who were enrolled at a postsecondary institution. *Hours worked per week* refers to the number of hours the respondent worked at all jobs during the survey

week and therefore excludes those who were employed but not at work during the survey week. College includes both 2- and 4-year institutions. Race categories exclude persons of Hispanic ethnicity.

**Table 41-1. Percentage of 16- to 24-year-old undergraduates who were employed, by hours worked per week, sex, and race/ethnicity: 2010**

Sex and race/ethnicity	Percent employed <sup>1</sup>	Hours worked per week <sup>2</sup>		
		Less than 20 hours	20-34 hours	35 or more hours
<b>Total<sup>3</sup></b>	<b>71.3</b>	<b>21.0</b>	<b>31.0</b>	<b>19.3</b>
<b>Sex</b>				
Male	69.9	18.0	29.8	22.2
Female	72.5	23.5	32.2	16.9
<b>Race/ethnicity</b>				
White	77.7	23.2	33.8	20.6
Black	60.0	15.4	27.1	17.6
Hispanic	64.4	15.7	29.0	19.7
Asian	50.6	21.4	18.5	10.7
Native Hawaiian/Pacific Islander	61.0	16.7	29.4	14.8
American Indian/Alaska Native <sup>4</sup>	65.8	16.9	23.9	25.0
American Indian	66.2	15.8	24.3	26.1
Alaska Native	‡	‡	‡	‡
Two or more races	73.4	24.1	31.7	17.5
<b>Race/ethnicity by sex</b>				
<b>Male</b>				
White	76.2	19.4	32.4	24.4
Black	57.3	14.4	25.1	17.8
Hispanic	64.1	13.7	28.1	22.3
Asian	49.0	19.1	18.5	11.4
Native Hawaiian/Pacific Islander	61.8	12.6	34.2	15.0
American Indian/Alaska Native <sup>4</sup>	63.9	14.9	23.7	25.4
American Indian	65.3	15.3	23.4	26.6
Alaska Native	‡	‡	‡	‡
Two or more races	72.0	22.1	29.5	20.3
<b>Female</b>				
White	79.1	26.7	35.1	17.3
Black	62.0	16.1	28.5	17.4
Hispanic	64.7	17.3	29.8	17.6
Asian	52.2	23.7	18.4	10.0
Native Hawaiian/Pacific Islander	60.3	20.4	25.1	14.7
American Indian/Alaska Native <sup>4</sup>	67.3	18.5	24.1	24.8
American Indian	66.9	16.1	24.9	25.9
Alaska Native	‡	‡	‡	‡
Two or more races	74.6	25.8	33.5	15.2

<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

<sup>1</sup> Includes those who were employed but not at work during the survey week.

<sup>2</sup> Excludes those who were employed but not at work during the survey week; therefore, detail may not sum to total percentage employed. *Hours worked per week* refers to the number of hours the respondent worked at all jobs during the survey week.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>4</sup> Includes persons reporting American Indian only, Alaska Native only, and persons from American Indian and/or Alaska Native tribes specified or not specified.

NOTE: College includes both 2- and 4-year institutions. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

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## Indicator 42

# Graduation Rates and Degrees Conferred

*A higher percentage of female than male first-time postsecondary students who started as full-time degree-seeking students in 2004 completed bachelor's degrees within 6 years (61 vs. 56 percent). In 2010, a lower percentage of males than females earned associate's degrees in science, technology, engineering, and mathematics (STEM) fields (28 vs. 32 percent). In contrast, at the bachelor's level a higher percentage of males than females earned degrees in STEM fields (28 vs. 22 percent).*

About 58 percent of all first-time students seeking bachelor's degrees who started at a 4-year college full time in 2004 completed a bachelor's degree within 6 years. A higher percentage of females than males completed bachelor's degrees within 6 years (61 vs. 56 percent). This pattern held across all racial/ethnic groups, with the greatest difference between Black females and males (9 percentage points) and the smallest difference between American Indian/Alaska Native females and males (3 percentage points).

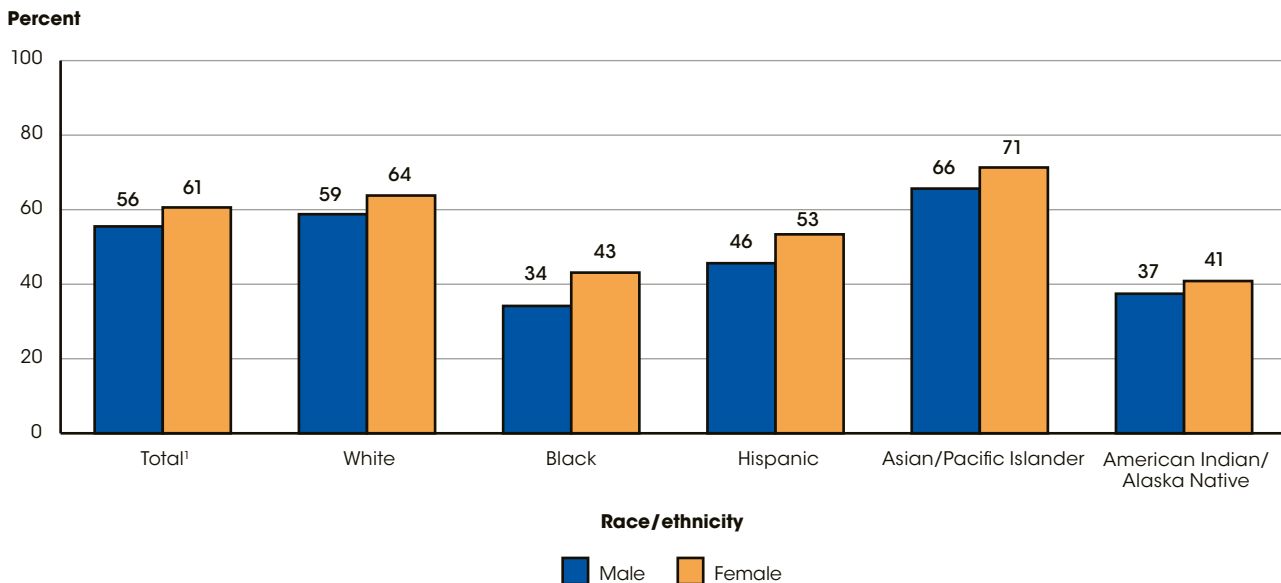
The percentage of students who started as full-time degree-seeking students and completed a bachelor's degree within 6 years varied across racial/ethnic groups. Some 69 percent of Asian/Pacific Islander students completed bachelor's degrees within 6 years, compared with 62 percent of White, 50 percent of Hispanic, and 39 percent each of Black and American Indian/Alaska Native students. The same pattern was observed for the female subset of the racial/ethnic groups. Among

males, Asian/Pacific Islanders had the highest percentage completing bachelor's degrees within 6 years (66 percent), followed by White (59 percent), Hispanic (46 percent), American Indian/Alaska Native (37 percent), and Black males (34 percent).

In 2010, postsecondary degree-granting institutions conferred a total of 3.4 million associate's, bachelor's, master's, and doctor's degrees. Of this total, 25 percent were associate's degrees, 49 percent were bachelor's degrees, 21 percent were master's degrees, and 5 percent were doctor's degrees.

Some 30 percent of all associate's degrees conferred in 2010 were in a STEM field of study. A lower percentage of males than females earned associate's degrees in STEM fields (27 vs. 32 percent). This pattern held between the sexes for White (28 vs. 35 percent), Black (28 vs. 31 percent), Asian/Pacific Islander (30 vs. 31 percent), and American Indian/Alaska Native students (25 vs.

**Figure 42-1. Percentage of first-time postsecondary students who started as full-time degree-seeking students at a 4-year institution and graduated with a bachelor's degree within 6 years, by race/ethnicity and sex: Cohort entry year 2004**

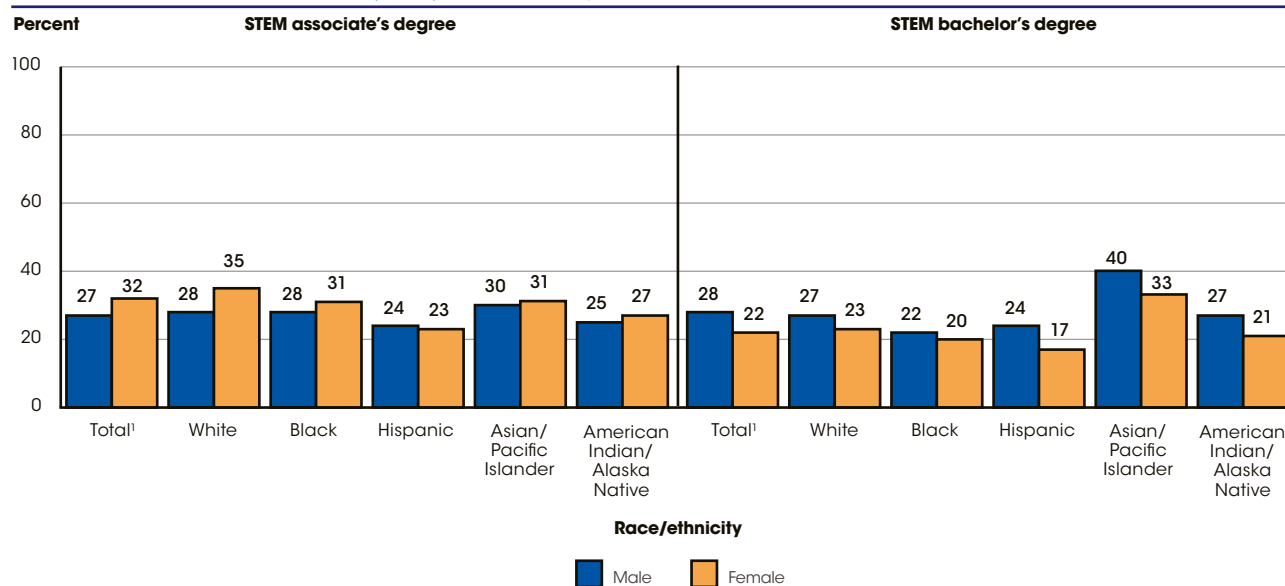


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2011, Graduation Rates component.

**Figure 42-2. Percentage of degrees conferred by degree-granting institutions in science, technology, engineering, and mathematics (STEM) fields, by degree level, race/ethnicity, and sex: Academic year 2009–10**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: STEM degrees, as defined here, include mathematics; natural sciences (including physical sciences and biological/agricultural sciences); engineering/engineering technologies; health professions and related clinical sciences; and computer/information sciences. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Reported racial/ethnic distributions of students by level of degree, field of degree, and sex were used to estimate race/ethnicity for students whose race/ethnicity was not reported. Separate estimates for Asians and Native Hawaiians/Pacific Islanders were not available; therefore, data for these groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2010, Completions component.

27 percent). In contrast, a higher percentage of Hispanic males earned associate's degrees in STEM fields than did Hispanic females (24 vs. 23 percent).

The percentages of associate's degrees conferred in STEM fields varied across racial/ethnic groups. For example, 23 percent of Hispanic students earned associate's degrees in STEM fields, compared with 26 percent of American Indian/Alaska Native students, 30 percent each of Black and Asian/Pacific Islander students, and 32 percent of White students. For both males and females, lower percentages of Hispanic and American Indian/Alaska Native students earned associate's degrees in STEM fields than did White, Black, or Asian/Pacific Islander students.

About 25 percent of all 2010 bachelor's degrees were conferred in STEM fields of study. A higher percentage of males than females earned bachelor's degrees in STEM fields (28 vs. 22 percent). This pattern was observed across

all racial/ethnic groups, with the greatest differences observed between both Hispanic males and females and Asian/Pacific Islander males and females (7 percentage points each). The smallest difference was observed between Black males and females (2 percentage points).

The percentages of bachelor's degrees conferred in STEM fields also varied across racial/ethnic groups. Some 36 percent of all Asian/Pacific Islander students earned a bachelor's degree in a STEM field, compared with 25 percent of White, 23 percent of American Indian/Alaska Native, 21 percent of Black, and 20 percent of Hispanic students. The same pattern was observed for the female subset across racial/ethnic groups. Among males, however, White and American Indian/Alaska Native students earned the same percentage of bachelor's degrees in STEM fields (27 percent each). A higher percentage of Hispanic than Black male students earned bachelor's degrees in STEM fields (24 vs. 22 percent).

## Technical Notes

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The overall graduation rate represents the percentage of full-time, first-time students who began in the fall term and graduated from the institution within 150 percent of normal program completion time. For a bachelor's degree, this represents 6 years. Students who transferred to another institution and graduated are not counted as completers at their initial institution. STEM degrees, as defined here, include mathematics; natural sciences (including physical sciences and biological/agricultural sciences); engineering/engineering technologies; health professions and related clinical sciences; and computer/information sciences. Degree-granting institutions grant associate's or higher degrees and participate in Title IV

federal financial aid programs. Reported racial/ethnic distributions of students by level 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. This indicator presents information on Asians and Pacific Islanders as a combined category, because the data were collected in a manner that does not permit separate reporting. Since 96 percent of all Asian/Pacific Islander 5- to 24-year-olds are Asian, this combined category substantially reflects the situation for Asians, rather than Pacific Islanders. For more information, please see the introduction to this report.



**Table 42-1. Graduation rates of first-time postsecondary students who started as full-time degree-seeking students, by time between starting and graduating, sex, and race/ethnicity: Cohort years 2004 and 2007**

Sex and race/ethnicity	2004 starting cohort			2007 starting cohort
	Percent completing bachelor's degree within 4 years	Percent completing bachelor's degree within 5 years	Percent completing bachelor's degree within 6 years	Percent completing certificates or associate's degree within 150 percent of normal time
<b>Total<sup>1</sup></b>	<b>37.9</b>	<b>53.9</b>	<b>58.3</b>	<b>29.9</b>
Sex				
Male	32.9	50.5	55.5	26.4
Female	42.1	56.8	60.6	32.7
Race/ethnicity				
White	41.1	57.5	61.5	29.5
Black	20.4	34.2	39.5	25.3
Hispanic	27.9	44.0	50.1	33.4
Asian/Pacific Islander	45.0	62.9	68.7	33.6
American Indian/Alaska Native	21.8	34.7	39.4	25.6
Race/ethnicity by sex				
Male				
White	35.6	54.0	58.8	27.2
Black	15.0	28.6	34.2	20.4
Hispanic	23.2	39.2	45.6	26.7
Asian/Pacific Islander	39.9	59.3	65.7	29.7
American Indian/Alaska Native	18.9	31.9	37.5	23.9
Female				
White	45.8	60.5	63.8	31.6
Black	24.1	38.1	43.1	28.4
Hispanic	31.3	47.5	53.4	37.9
Asian/Pacific Islander	49.4	66.0	71.3	37.4
American Indian/Alaska Native	23.9	36.8	40.9	26.8

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2011, Graduation Rates component.

**Table 42-2. Number and percentage distribution of degrees overall and number and percentage of science, technology, engineering, and mathematics (STEM) degrees conferred by postsecondary degree-granting institutions, by degree level, sex, and race/ethnicity: Academic year 2009-10**

Sex and race/ethnicity	Total number	Associate's			Bachelor's				
		Number	Percent of total	Number of STEM	Percent STEM	Number	Percent of total	Number of STEM	Percent STEM
<b>Total<sup>1</sup></b>	<b>3,351,049</b>	<b>849,452</b>	<b>25</b>	<b>258,259</b>	<b>30</b>	<b>1,650,014</b>	<b>49</b>	<b>409,618</b>	<b>25</b>
Sex									
Male	1,381,351	322,916	23	88,232	27	706,633	51	197,423	28
Female	1,969,698	526,536	27	170,027	32	943,381	48	212,195	22
Race/ethnicity									
White	2,269,826	552,863	24	179,132	32	1,167,499	51	288,974	25
Black	365,624	113,905	31	34,107	30	164,844	45	33,986	21
Hispanic	304,147	112,211	37	25,756	23	140,316	46	27,791	20
Asian/Pacific Islander	220,770	44,021	20	13,355	30	117,422	53	42,429	36
American Indian/Alaska Native	27,648	10,337	37	2,739	26	12,399	45	2,845	23
Race/ethnicity by sex									
Male									
White	950,697	216,072	23	60,251	28	513,717	54	141,227	27
Black	118,049	36,136	31	10,193	28	56,171	48	12,127	22
Hispanic	116,490	42,232	36	10,009	24	55,092	47	13,344	24
Asian/Pacific Islander	98,406	18,264	19	5,494	30	53,377	54	21,318	40
American Indian/Alaska Native	10,344	3,624	35	905	25	4,875	47	1,293	27
Female									
White	1,319,129	336,791	26	118,881	35	653,782	50	147,747	23
Black	247,575	77,769	31	23,914	31	108,673	44	21,859	20
Hispanic	187,657	69,979	37	15,747	23	85,224	45	14,447	17
Asian/Pacific Islander	122,364	25,757	21	7,861	31	64,045	52	21,111	33
American Indian/Alaska Native	17,304	6,713	39	1,834	27	7,524	43	1,552	21

See notes at end of table.

**Table 42-2. Number and percentage distribution of degrees overall and number and percentage of science, technology, engineering, and mathematics (STEM) degrees conferred by postsecondary degree-granting institutions, by degree level, sex, and race/ethnicity: Academic year 2009-10—Continued**

Sex and race/ethnicity	Total number	Master's				Doctor's			
		Number	Percent of total	Number of STEM	Percent STEM	Number	Percent of total	Number of STEM	Percent STEM
<b>Total<sup>1</sup></b>	<b>3,351,049</b>	<b>693,025</b>	<b>21</b>	<b>154,016</b>	<b>22</b>	<b>158,558</b>	<b>5</b>	<b>82,584</b>	<b>52</b>
Sex									
Male	1,381,351	275,197	20	70,557	26	76,605	6	39,925	52
Female	1,969,698	417,828	21	83,459	20	81,953	4	42,659	52
Race/ethnicity									
White	2,269,826	445,038	20	86,129	19	104,426	5	51,200	49
Black	365,624	76,458	21	11,693	15	10,417	3	4,053	39
Hispanic	304,147	43,535	14	7,304	17	8,085	3	3,412	42
Asian/Pacific Islander	220,770	42,702	19	13,874	32	16,625	8	11,247	68
American Indian/Alaska Native	27,648	3,960	14	753	19	952	3	397	42
Race/ethnicity by sex									
Male									
White	950,697	170,203	18	33,999	20	50,705	5	23,839	47
Black	118,049	22,120	19	3,438	16	3,622	3	1,394	38
Hispanic	116,490	15,525	13	3,059	20	3,641	3	1,524	42
Asian/Pacific Islander	98,406	19,535	20	6,891	35	7,230	7	4,930	68
American Indian/Alaska Native	10,344	1,415	14	268	19	430	4	174	40
Female									
White	1,319,129	274,835	21	52,130	19	53,721	4	27,361	51
Black	247,575	54,338	22	8,255	15	6,795	3	2,659	39
Hispanic	187,657	28,010	15	4,245	15	4,444	2	1,888	42
Asian/Pacific Islander	122,364	23,167	19	6,983	30	9,395	8	6,317	67
American Indian/Alaska Native	17,304	2,545	15	485	19	522	3	223	43

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

NOTE: STEM degrees, as defined here, include mathematics; natural sciences (including physical sciences and biological/agricultural sciences); engineering/engineering technologies; health professions and related clinical sciences; and computer/information sciences. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Reported racial/ethnic distributions of students by level 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.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2010, Completions component.



# Chapter 7

## Postsecondary Outcomes and Employment

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Chapter 7 examines postsecondary outcomes for males and females across racial/ethnic groups. These indicators describe differences among adults with varying levels of educational attainment, labor force participation, and earnings. Additionally, information is presented on undergraduate fields of study and on science, technology, engineering, and mathematics (STEM) occupations.

Postsecondary graduates enter the job market well positioned for labor market success, and within a few years most earn more than their non-postsecondary-going peers. In general, adults with higher levels of education have higher median incomes and lower unemployment rates than their less educated peers. For example, in 2009, young adults ages 25–34 with a bachelor’s degree earned more than twice as much as young adults without a high school diploma or its equivalent, 50 percent more than young adults with a high school diploma or its equivalent, and 25 percent more than young adults with an associate’s degree (NCES 2011).

Unemployment also differs by educational attainment. In 2010, a smaller percentage of young adults with a bachelor’s degree or higher were unemployed than were their peers with lower levels of education (NCES 2011). For example, 4 percent of those with a bachelor’s degree or higher were unemployed, compared with 7 percent of those with an associate’s degree, 10 percent of those with some college education, 13 percent of high school completers, and 14 percent of those who had not completed high school.

Rising concern about America’s ability to maintain its competitive position in the global economy has renewed interest in STEM education. A recent study comparing postsecondary outcomes of STEM and non-STEM postsecondary entrants 6 years after their initial enrollment found that undergraduates majoring in STEM fields had a higher rate of completing a bachelor’s degree program (35 percent vs. 27–29 percent) and a lower rate of leaving a postsecondary institution without earning any degree (27 percent vs. 33–36 percent) than their non-STEM peers (Chen 2009). Recent data show that STEM employee earnings are significantly higher than non-STEM employee earnings, regardless of race, ethnicity, or nativity.

## Indicator 43

# Educational Attainment

*In 2010, the percentage of young adult males ages 25 to 34 who had earned at least a bachelor's degree (27 percent) was lower than the corresponding percentage for their female peers (35 percent). This pattern by sex also held for Whites, Blacks, Hispanics, and persons of two or more races.*

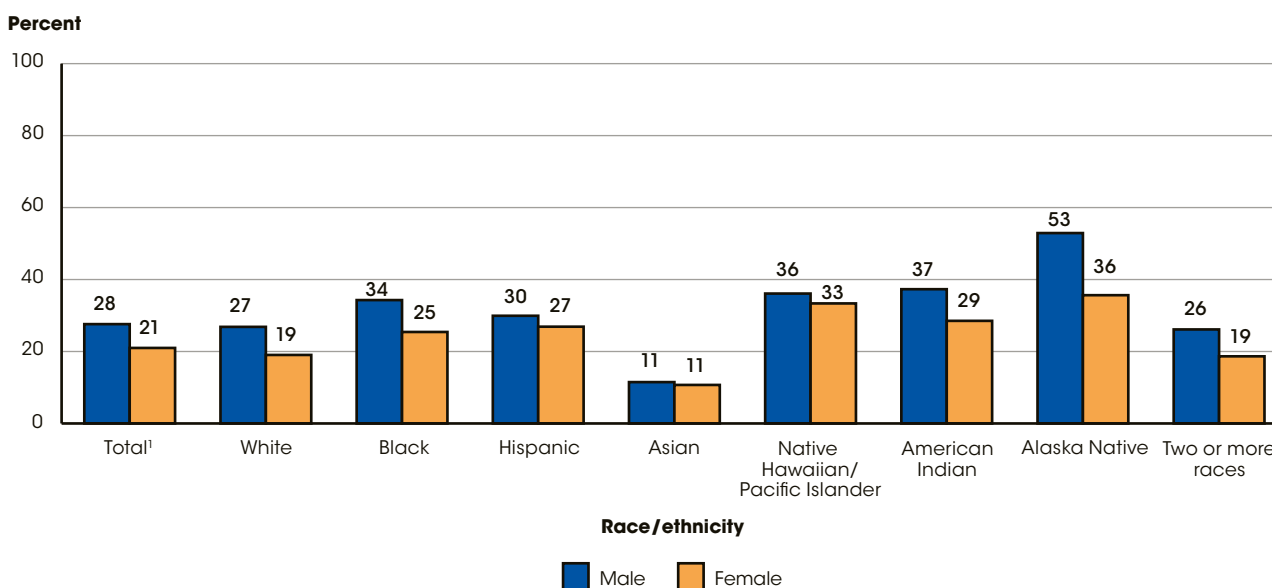
Among the more than 41 million young adults ages 25 to 34 in 2010, some 13 percent had not completed high school, 24 percent had completed high school but gone no further, 32 percent had attended some college or had earned an associate's degree, and another 31 percent had earned at least a bachelor's degree. These percentages varied by sex, race/ethnicity, nativity, and citizenship status.

A higher percentage of males than females had not completed high school in 2010 (15 vs. 11 percent). This pattern by sex was also observed among White, Black, and Hispanic young adults, and young adults of two or more races. For instance, 36 percent of Hispanic young adult males had not completed high school, compared with 29 percent of their female peers. Concerning race/ethnicity overall, the percentage of young adults who had not completed high school was highest for Hispanics (32 percent). This percentage was also higher for American Indians (17 percent), Alaska Natives (16 percent), and Blacks (14 percent) than for Whites (7 percent), Asians (5 percent), Native Hawaiians/Pacific Islanders (8 percent), and young adults of two or more races (8 percent).

Differences on this measure also held among the male and female subgroups. For both Hispanic and Asian young adults, the percentage who had not completed high school was higher for those born outside the United States than for their peers who were born within the United States (47 vs. 16 percent and 7 vs. 2 percent, respectively). In terms of citizenship status, a higher percentage of noncitizens than U.S.-born citizens and naturalized citizens had not completed high school (37 vs. 9 and 10 percent, respectively).

The percentage of young adults whose highest level of educational attainment was high school completion was higher for males than females both overall (28 vs. 21 percent) and for most racial/ethnic groups (with the exception of Asians and Native Hawaiians/Pacific Islanders, for whom no measurable differences were found). For example, 53 percent of Alaska Native males had only completed high school versus 36 percent of their female peers. In terms of race/ethnicity, the percentage of young adults who had only completed high school was higher for Alaska Natives (43 percent), Native Hawaiians/Pacific

**Figure 43-1. Percentage of young adults ages 25 to 34 whose highest level of educational attainment was high school completion, by race/ethnicity and sex: 2010**

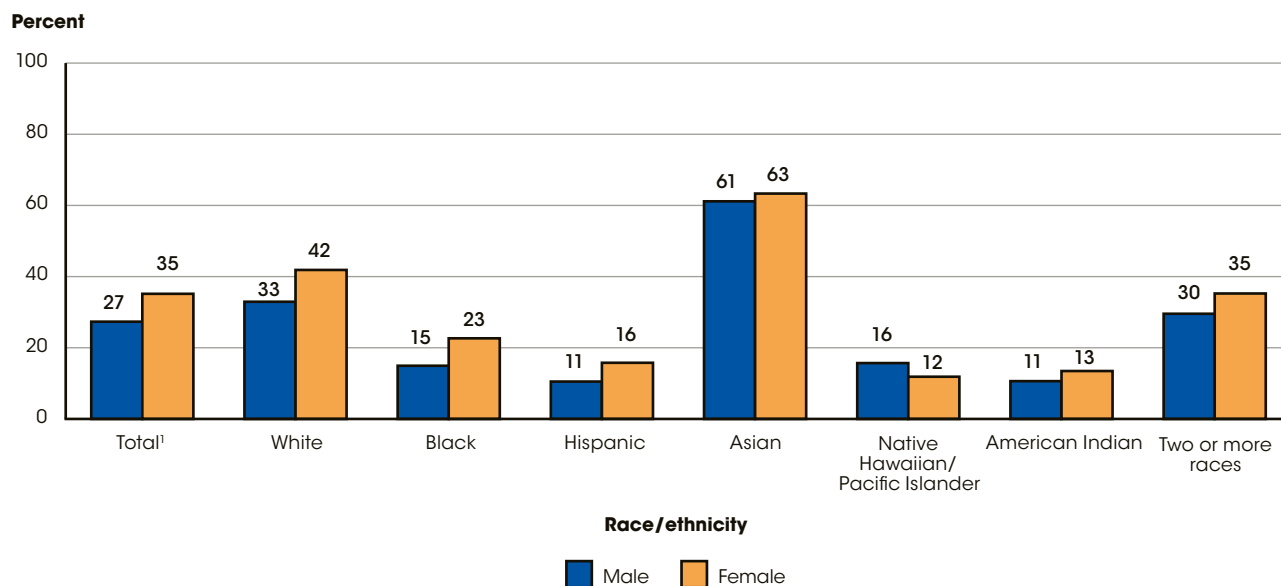


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

**Figure 43-2. Percentage of young adults ages 25 to 34 whose highest level of educational attainment was a bachelor's or higher degree, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Reporting standards for Alaska Native males and females were not met; therefore, data for these groups are not shown in the figure. Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

Islanders (35 percent), and American Indians (33 percent) than for Whites (23 percent), Blacks (30 percent), Hispanics (28 percent), and persons of two or more races (22 percent). Differences by race/ethnicity were also observed among both male and female young adults who had completed only high school. For both Hispanics and Asians, the percentage whose highest level of educational attainment was high school completion was equivalent for those born within the United States and their peers who were born outside the United States. Concerning citizenship status, a lower percentage of naturalized citizens than U.S.-born citizens and noncitizens had completed only high school (20 vs. 25 and 24 percent, respectively).

The percentage of young adults whose highest level of educational attainment was a bachelor's or higher degree was lower for males than for females overall (27 vs. 35 percent) as well as for Whites, Blacks, Hispanics, and persons of two or more races. For instance, 15 percent of Black males had earned at least a bachelor's degree,

compared with 23 percent of Black females. Across the racial/ethnic groups, the percentage of young adults who had obtained at least a bachelor's degree was higher for Asians (62 percent) and Whites (37 percent) than for Blacks (19 percent), Hispanics (13 percent), Native Hawaiians/Pacific Islanders (14 percent), American Indians (12 percent), and persons of two or more races (32 percent). Differences by race/ethnicity were also observed among both male and female young adults who had earned a bachelor's or higher degree. A lower percentage of Hispanics who were born outside of the United States had earned at least a bachelor's degree than their Hispanic peers who were born within the United States (8 vs. 18 percent). No measurable difference was observed, however, between U.S.-born Asians and their non-U.S.-born peers. Higher percentages of U.S.-born and naturalized citizens than noncitizens had earned at least a bachelor's degree (32 and 38 percent vs. 24 percent, respectively); the percentage for naturalized citizens was also higher than that for U.S.-born citizens.

## Technical Notes

Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment

centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

**Table 43-1. Number and percentage of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Total, number	Less than high school completion, percent	High school completion or higher, percent			
			Total	High school completion only <sup>1</sup>	Some college or associate's degree	Bachelor's or higher degree
<b>Total<sup>2</sup></b>	<b>40,886,000</b>	<b>12.9</b>	<b>87.1</b>	<b>24.3</b>	<b>31.6</b>	<b>31.2</b>
Sex						
Male	20,494,000	14.9	85.1	27.6	30.2	27.3
Female	20,392,000	10.9	89.1	21.0	33.0	35.2
Race/ethnicity						
White	23,713,000	6.6	93.4	23.0	33.1	37.4
Black	5,168,000	13.9	86.1	29.6	37.5	19.0
Hispanic	8,397,000	32.5	67.5	28.5	26.0	13.0
Asian	2,431,000	5.5	94.5	11.1	21.1	62.3
Native Hawaiian/Pacific Islander	76,000	7.7	92.3	34.8	43.5	13.9
American Indian/Alaska Native <sup>3</sup>	277,000	16.8	83.2	32.7	38.4	12.1
American Indian	229,000	16.9	83.1	32.8	38.2	12.1
Alaska Native	15,000	15.7	84.3	43.1	36.0	‡
Two or more races	735,000	8.2	91.8	22.3	37.0	32.5
Race/ethnicity by sex						
Male						
White	11,969,000	7.8	92.2	26.8	32.5	32.9
Black	2,438,000	17.0	83.0	34.3	33.8	14.9
Hispanic	4,376,000	35.8	64.2	29.9	23.8	10.5
Asian	1,133,000	5.7	94.3	11.5	21.6	61.2
Native Hawaiian/Pacific Islander	40,000	‡	92.2	36.1	40.4	15.7
American Indian/Alaska Native <sup>3</sup>	137,000	18.5	81.5	37.6	33.6	10.2
American Indian	113,000	18.6	81.4	37.3	33.5	10.6
Alaska Native	6,000	‡	82.6	52.9	‡	‡
Two or more races	358,000	9.7	90.3	26.1	34.6	29.6
Female						
White	11,744,000	5.4	94.6	19.0	33.7	41.9
Black	2,730,000	11.2	88.8	25.4	40.7	22.7
Hispanic	4,021,000	28.8	71.2	26.9	28.5	15.8
Asian	1,298,000	5.2	94.8	10.7	20.7	63.3
Native Hawaiian/Pacific Islander	36,000	‡	92.4	33.4	47.1	11.9
American Indian/Alaska Native <sup>3</sup>	140,000	15.0	85.0	27.9	43.2	13.9
American Indian	116,000	15.1	84.9	28.5	42.9	13.5
Alaska Native	8,000	‡	85.6	35.6	42.5	‡
Two or more races	377,000	6.7	93.3	18.7	39.4	35.3

See notes at end of table.



**Table 43-1. Number and percentage of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Total, number	Less than high school completion, percent	High school completion or higher, percent			
			Total	High school completion only <sup>1</sup>	Some college or associate's degree	Bachelor's or higher degree
<b>Total<sup>2</sup></b>	<b>40,886,000</b>	<b>12.9</b>	<b>87.1</b>	<b>24.3</b>	<b>31.6</b>	<b>31.2</b>
Nativity						
Hispanic						
Born within the United States <sup>4</sup>	4,036,000	16.4	83.6	28.7	36.8	18.1
Born outside of the United States	4,361,000	47.3	52.7	28.2	16.1	8.3
Asian						
Born within the United States <sup>4</sup>	647,000	2.3	97.7	10.6	26.4	60.6
Born outside of the United States	1,784,000	6.6	93.4	11.3	19.2	62.9
Citizenship status						
U.S.-born citizen	33,477,000	9.0	91.0	24.9	34.4	31.7
Naturalized citizen	2,060,000	10.1	89.9	20.0	31.8	38.1
Noncitizen	5,751,000	37.4	62.6	23.7	15.0	23.9

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>4</sup> Includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Marianas. Also includes those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey, 2010.

## Indicator 44

# Labor Force Participation

*Eighty-five percent of young adults ages 25 to 34 with a bachelor's or higher degree were employed in 2010. The percentage of these young adults who were employed was higher for males than females in that year (89 vs. 82 percent); however, the percentage who were unemployed did not differ measurably between males and females (5 vs. 4 percent).*

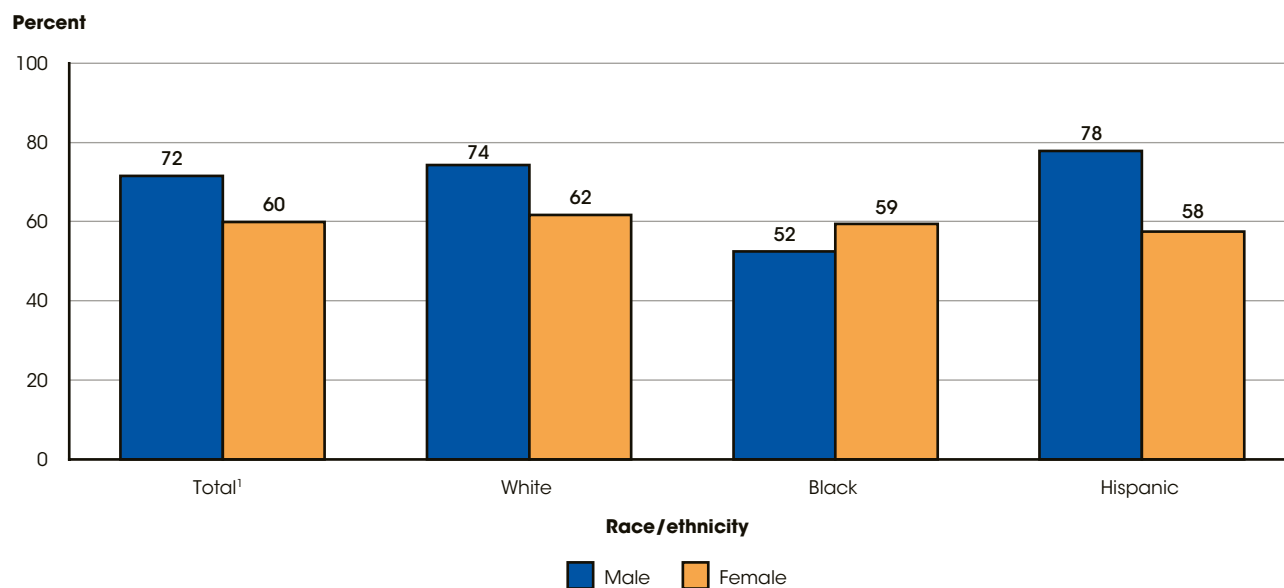
In 2010, about 73 percent of young adults ages 25 to 34 were employed, 9 percent were unemployed, and 18 percent were not in the labor force. These percentages varied by demographic characteristics such as highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status.

For young adults who had not completed high school, a higher percentage of males than females were employed in 2010 (63 vs. 40 percent). This pattern by sex also held among Whites and Hispanics with this level of educational attainment. For instance, the percentages for Hispanic males and females were 77 and 42 percent, respectively. A few measurable differences by race in the percentage employed were found among male young adults who had not completed high school, whereas none were found among their female peers. A higher percentage of Hispanic young adults who were born outside the United States and had not completed high school were

employed than their U.S.-born peers (66 vs. 49 percent). Among those who did not complete high school, higher percentages of naturalized citizens and noncitizens were employed than their peers who were U.S.-born citizens (66 and 65 vs. 44 percent, respectively).

Among young adults whose highest level of educational attainment was high school completion, 67 percent were employed in 2010 overall, with a higher rate of employment for males than for females (72 vs. 60 percent). This difference by sex was also observed among Whites and Hispanics. For example, 78 percent of Hispanic males with only a high school credential were employed, compared with 58 percent of Hispanic females with this level of education. Concerning racial/ethnic differences, a lower percentage of Blacks who had only completed high school were employed (56 percent) than were their White (69 percent), Hispanic (69 percent), and Asian (67 percent) peers. Differences in the percentage employed

**Figure 44-1. Employment of young adults ages 25 to 34 whose highest level of educational attainment was high school completion, by race/ethnicity and sex: 2010**

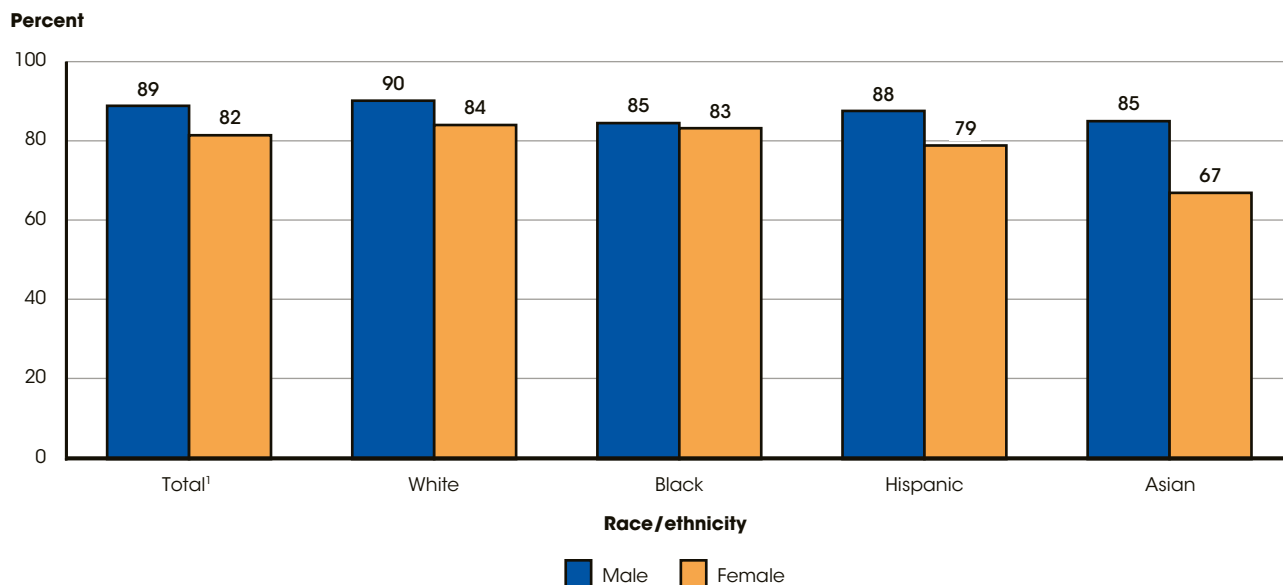


<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. Detail may not sum to totals because of rounding. Reporting standards for some data for Asian females, Native Hawaiian/Pacific Islander males and females, American Indian males and females, and Alaska Native males and females, as well as females of two or more races were not met; therefore, data for males and females in these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

**Figure 44-2. Employment of young adults ages 25 to 34 whose highest level of educational attainment was a bachelor's or higher degree, by race/ethnicity and sex: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. Reporting standards were not met for some data for Native Hawaiians/Pacific Islanders, American Indians/Alaska Natives, American Indians, Alaska Natives, and males of two or more races; therefore, data for males and females in these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

were also observed among males. No measurable differences in employment rates were found among females in the various racial/ethnic groups, nor were measurable differences found by nativity or citizenship status.

For young adults whose highest level of attainment was at least a bachelor's degree, 85 percent were employed in 2010 overall, with a higher employment rate for males than for females (89 vs. 82 percent). In addition, higher percentages of White, Hispanic, and Asian males than females with a bachelor's or higher degree were employed. For example, 85 percent of Asian males with at least a bachelor's degree were employed, compared with 67 percent of their female counterparts. In terms of overall racial/ethnic differences, higher percentages of White (87 percent), Black (84 percent), and Hispanic young adults (83 percent) were employed than were their Asian peers (75 percent). Although no measurable differences in employment percentages were observed by race/ethnicity among male young adults with a bachelor's or higher degree, racial/ethnic differences among females generally reflected the overall pattern. Higher percentages of Hispanic and Asian young adults with a bachelor's or higher degree who were born within the United States were employed than were their peers who were born outside the United States (86 vs. 77 percent and 84 vs. 73 percent, respectively). Noncitizens with a bachelor's or higher degree had a lower employment rate than did their counterparts who were U.S.-born citizens and naturalized citizens (70 vs. 87 and 82 percent, respectively).

Thirteen percent of young adults who had not completed high school were unemployed in 2010. There were no measurable differences in this percentage by sex overall or by race/ethnicity. Among the few differences observed among the male and female subgroups, higher percentages of Black males and White males than Hispanic males who had not completed high school were unemployed (20 and 18 vs. 10 percent, respectively). A lower percentage of Hispanic young adults who were born outside the United States and had not completed high school were unemployed than their U.S.-born peers (8 vs. 16 percent). Lower percentages of naturalized citizens and noncitizens were unemployed than their peers who were U.S.-born citizens (8 and 9 vs. 17 percent, respectively).

Twelve percent of young adults whose highest level of educational attainment was high school completion were unemployed in 2010; this percentage was higher for males than females (13 vs. 11 percent). There were no measurable differences by sex in the percentage unemployed within specific racial/ethnic groups. A higher percentage of Blacks who had only completed high school were unemployed (18 percent) than were both their White (11 percent) and Hispanic peers (10 percent). Similar racial/ethnic unemployment patterns were observed among both males and females. U.S.-born citizens with only a high school credential had a higher unemployment rate than their peers who were noncitizens (13 vs. 9 percent); no measurable differences in unemployment were observed with regard to nativity.

Five percent of young adults who had earned a bachelor's or higher degree were unemployed in 2010. A higher percentage of Blacks than Whites with at least a bachelor's degree were unemployed (8 vs. 4 percent); this racial/

ethnic pattern was also observed among females. No other measurable differences were found among bachelor's or higher degree earners across the other demographic characteristics.

## Technical Notes

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Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military

barracks, correctional facilities, and workers' dormitories. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. *Labor force status* refers to the full calendar week prior to the week when the respondent answered the questions. Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

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**Table 44-1. Labor force status of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Total			Less than high school completion		
	In the labor force		Not in the labor force	In the labor force		Not in the labor force
	Employed	Unemployed		Employed	Unemployed	
<b>Total<sup>2</sup></b>	<b>73.4</b>	<b>9.0</b>	<b>17.7</b>	<b>53.4</b>	<b>13.4</b>	<b>33.2</b>
<b>Sex</b>						
Male	77.6	10.0	12.5	62.9	13.9	23.3
Female	69.1	8.0	22.9	40.4	12.8	46.8
<b>Race/ethnicity</b>						
White	77.1	7.7	15.2	48.2	16.0	35.8
Black	63.1	15.0	21.9	32.4	21.0	46.6
Hispanic	70.2	9.1	20.7	62.2	10.2	27.6
Asian	72.6	6.3	21.1	‡	‡	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	57.8	13.2 !	29.1	‡	‡	49.1
American Indian	58.4	13.1 !	28.5	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	69.7	11.2	19.1	43.1 !	14.6 !	42.2 !
<b>Race/ethnicity by sex</b>						
<b>Male</b>						
White	80.8	9.0	10.2	55.4	17.6	27.0
Black	58.5	16.2	25.2	27.9	20.0	52.1
Hispanic	79.6	9.6	10.9	77.1	10.2	12.7
Asian	81.3	6.5	12.2	‡	‡	‡
Native Hawaiian/Pacific Islander	74.4 !	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	56.5	15.1 !	28.4	‡	‡	48.7 !
American Indian	56.7	14.9 !	28.4	‡	‡	49.7 !
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	72.1	12.0	15.9	46.5 !	‡	37.6 !
<b>Female</b>						
White	73.3	6.4	20.3	37.4	13.7	48.9
Black	67.2	13.8	19.0	38.5	22.3	39.2
Hispanic	60.1	8.7	31.3	42.1	10.1	47.8
Asian	65.0	6.2	28.9	‡	‡	‡
Native Hawaiian/Pacific Islander	64.2	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	59.0	11.3 !	29.8	‡	‡	49.4 !
American Indian	60.0	11.4 !	28.6	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	67.5	10.4	22.1	‡	‡	‡
<b>Nativity</b>						
<b>Hispanic</b>						
Born within the United States <sup>4</sup>	70.6	10.3	19.1	49.0	15.7	35.3
Born outside the United States	69.8	8.0	22.1	66.5	8.4	25.2
<b>Asian</b>						
Born within the United States <sup>4</sup>	79.5	7.2	13.3	‡	‡	‡
Born outside the United States	70.1	6.0	23.9	‡	‡	‡
<b>Citizenship status</b>						
U.S.-born citizen	74.2	9.2	16.6	43.9	17.3	38.8
Naturalized citizen	77.1	7.3	15.6	66.4	8.2	25.5
Noncitizen	67.5	7.9	24.7	65.2	8.6 !	26.1

See notes at end of table.

**Table 44-1. Labor force status of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Total			High school completion <sup>1</sup>		
	In the labor force		Not in the labor force	In the labor force		Not in the labor force
	Employed	Unemployed		Employed	Unemployed	
<b>Total<sup>2</sup></b>	<b>73.4</b>	<b>9.0</b>	<b>17.7</b>	<b>66.6</b>	<b>12.1</b>	<b>21.3</b>
Sex						
Male	77.6	10.0	12.5	71.6	13.3	15.2
Female	69.1	8.0	22.9	60.0	10.6	29.5
Race/ethnicity						
White	77.1	7.7	15.2	69.2	11.4	19.4
Black	63.1	15.0	21.9	55.6	17.9	26.5
Hispanic	70.2	9.1	20.7	68.7	9.9	21.4
Asian	72.6	6.3	21.1	67.0	8.8 !	24.2
Native Hawaiian/Pacific Islander	‡	‡	‡	63.8 !	‡	‡
American Indian/Alaska Native <sup>3</sup>	57.8	13.2 !	29.1	‡	‡	‡
American Indian	58.4	13.1 !	28.5	53.6	15.8	30.6 !
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	69.7	11.2	19.1	59.1	16.8 !	24.1
Race/ethnicity by sex						
Male						
White	80.8	9.0	10.2	74.3	12.6	13.0
Black	58.5	16.2	25.2	52.5	19.3	28.2
Hispanic	79.6	9.6	10.9	77.9	10.7	11.4
Asian	81.3	6.5	12.2	76.3	9.3 !	14.5 !
Native Hawaiian/Pacific Islander	74.4 !	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	56.5	15.1 !	28.4	‡	‡	‡
American Indian	56.7	14.9 !	28.4	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	72.1	12.0	15.9	63.8	18.8 !	17.3 !
Female						
White	73.3	6.4	20.3	61.7	9.6	28.6
Black	67.2	13.8	19.0	59.4	16.1	24.5
Hispanic	60.1	8.7	31.3	57.5	8.8	33.6
Asian	65.0	6.2	28.9	‡	‡	‡
Native Hawaiian/Pacific Islander	64.2	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	59.0	11.3 !	29.8	‡	‡	‡
American Indian	60.0	11.4 !	28.6	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	67.5	10.4	22.1	‡	‡	‡
Nativity						
Hispanic						
Born within the United States <sup>4</sup>	70.6	10.3	19.1	66.8	11.7	21.5
Born outside the United States	69.8	8.0	22.1	70.5	8.1	21.4
Asian						
Born within the United States <sup>4</sup>	79.5	7.2	13.3	‡	‡	‡
Born outside the United States	70.1	6.0	23.9	65.8	8.4 !	25.8
Citizenship status						
U.S.-born citizen	74.2	9.2	16.6	66.0	12.8	21.2
Naturalized citizen	77.1	7.3	15.6	73.1	8.4	18.5
Noncitizen	67.5	7.9	24.7	68.2	8.9 !	22.9

See notes at end of table.

**Table 44-1. Labor force status of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Total			Some college or associate's degree		
	In the labor force		Not in the labor force	In the labor force		Not in the labor force
	Employed	Unemployed		Employed	Unemployed	
<b>Total<sup>2</sup></b>	<b>73.4</b>	<b>9.0</b>	<b>17.7</b>	<b>75.2</b>	<b>9.1</b>	<b>15.7</b>
<b>Sex</b>						
Male	77.6	10.0	12.5	79.8	9.6	10.6
Female	69.1	8.0	22.9	71.0	8.6	20.4
<b>Race/ethnicity</b>						
White	77.1	7.7	15.2	77.1	7.8	15.1
Black	63.1	15.0	21.9	69.9	13.9	16.2
Hispanic	70.2	9.1	20.7	75.6	8.7	15.7
Asian	72.6	6.3	21.1	70.5	8.2	21.3
Native Hawaiian/Pacific Islander	‡	‡	‡	73.3 !	‡	‡
American Indian/Alaska Native <sup>3</sup>	57.8	13.2 !	29.1	63.7	12.3 !	23.9
American Indian	58.4	13.1 !	28.5	69.9	13.1 !	17.1 !
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	69.7	11.2	19.1	69.9	13.1	17.1
<b>Race/ethnicity by sex</b>						
<b>Male</b>						
White	80.8	9.0	10.2	82.3	8.7	9.0
Black	58.5	16.2	25.2	68.5	14.5	17.0
Hispanic	79.6	9.6	10.9	81.7	8.9	9.5
Asian	81.3	6.5	12.2	75.9	9.0 !	15.1
Native Hawaiian/Pacific Islander	74.4 !	‡	‡	82.6 !	‡	‡
American Indian/Alaska Native <sup>3</sup>	56.5	15.1 !	28.4	‡	‡	‡
American Indian	56.7	14.9 !	28.4	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	72.1	12.0	15.9	74.2	12.0 !	13.8
<b>Female</b>						
White	73.3	6.4	20.3	72.0	7.0	21.0
Black	67.2	13.8	19.0	70.9	13.4	15.7
Hispanic	60.1	8.7	31.3	70.0	8.6	21.4
Asian	65.0	6.2	28.9	65.5	7.5 !	26.9
Native Hawaiian/Pacific Islander	64.2	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	59.0	11.3 !	29.8	‡	‡	‡
American Indian	60.0	11.4 !	28.6	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	67.5	10.4	22.1	66.2	14.0 !	19.8
<b>Nativity</b>						
<b>Hispanic</b>						
Born within the United States <sup>4</sup>	70.6	10.3	19.1	75.8	9.2	15.0
Born outside the United States	69.8	8.0	22.1	75.0	7.7	17.3
<b>Asian</b>						
Born within the United States <sup>4</sup>	79.5	7.2	13.3	76.0	8.7 !	15.3 !
Born outside the United States	70.1	6.0	23.9	67.7	8.0	24.3
<b>Citizenship status</b>						
U.S.-born citizen	74.2	9.2	16.6	75.7	9.2	15.2
Naturalized citizen	77.1	7.3	15.6	77.2	7.5	15.2
Noncitizen	67.5	7.9	24.7	67.7	8.9	23.4

See notes at end of table.



**Table 44-1. Labor force status of young adults ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Total			Bachelor's or higher degree		
	In the labor force		Not in the labor force	In the labor force		Not in the labor force
	Employed	Unemployed		Employed	Unemployed	
<b>Total<sup>2</sup></b>	<b>73.4</b>	<b>9.0</b>	<b>17.7</b>	<b>85.0</b>	<b>4.6</b>	<b>10.5</b>
<b>Sex</b>						
Male	77.6	10.0	12.5	89.1	4.9	6.0
Female	69.1	8.0	22.9	81.7	4.3	14.0
<b>Race/ethnicity</b>						
White	77.1	7.7	15.2	87.1	3.9	9.0
Black	63.1	15.0	21.9	83.9	8.2	7.9
Hispanic	70.2	9.1	20.7	82.8	5.8	11.5
Asian	72.6	6.3	21.1	75.5	5.1	19.4
Native Hawaiian/Pacific Islander	‡	‡	‡	86.0!	‡	‡
American Indian/Alaska Native <sup>3</sup>	57.8	13.2!	29.1	84.3!	‡	‡
American Indian	58.4	13.1!	28.5	85.7!	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	69.7	11.2	19.1	83.2	4.7!	12.1!
<b>Race/ethnicity by sex</b>						
<b>Male</b>						
White	80.8	9.0	10.2	90.5	4.4	5.1
Black	58.5	16.2	25.2	84.8	8.6	6.6!
Hispanic	79.6	9.6	10.9	87.8	5.6!	6.5
Asian	81.3	6.5	12.2	85.3	5.0	9.8
Native Hawaiian/Pacific Islander	74.4!	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	56.5	15.1!	28.4	88.4!	‡	‡
American Indian	56.7	14.9!	28.4	88.0!	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	72.1	12.0	15.9	‡	‡	‡
<b>Female</b>						
White	73.3	6.4	20.3	84.3	3.5	12.2
Black	67.2	13.8	19.0	83.4	7.9	8.7
Hispanic	60.1	8.7	31.3	79.1	5.9	15.0
Asian	65.0	6.2	28.9	67.2	5.3	27.5
Native Hawaiian/Pacific Islander	64.2	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>3</sup>	59.0	11.3!	29.8	81.4!	‡	‡
American Indian	60.0	11.4!	28.6	83.9!	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡
Two or more races	67.5	10.4	22.1	81.6	4.4!	14.0!
<b>Nativity</b>						
<b>Hispanic</b>						
Born within the United States <sup>4</sup>	70.6	10.3	19.1	85.8	5.4	8.8
Born outside the United States	69.8	8.0	22.1	76.7	6.5!	16.7
<b>Asian</b>						
Born within the United States <sup>4</sup>	79.5	7.2	13.3	83.6	5.8!	10.6!
Born outside the United States	70.1	6.0	23.9	72.6	4.9	22.5
<b>Citizenship status</b>						
U.S.-born citizen	74.2	9.2	16.6	87.3	4.3	8.4
Naturalized citizen	77.1	7.3	15.6	81.9	6.4	11.7
Noncitizen	67.5	7.9	24.7	69.9	5.2	24.9

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate.

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or not specified.

<sup>4</sup> Includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Marianas. Also includes those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. *Labor force status* refers to the full calendar week prior to the week when the respondent answered the questions. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

## Indicator 45

# Median Annual Earnings

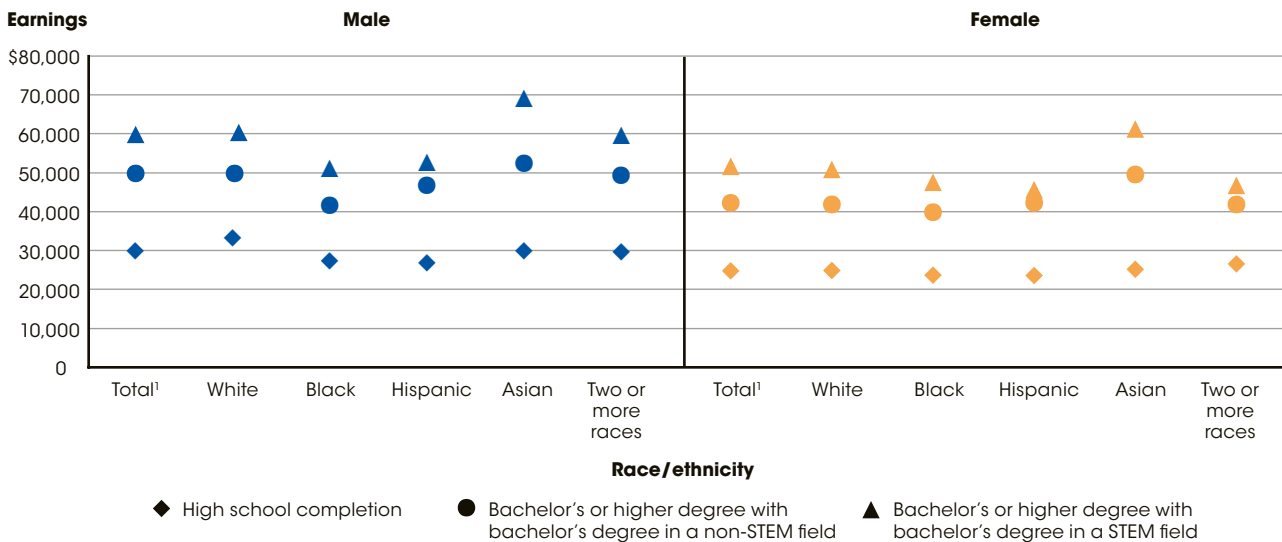
Median annual earnings for young adults ages 25 to 34 with a bachelor's or higher degree who worked full time and throughout a full year were \$50,300 in 2010. Males out-earned females by about \$9,100 (\$54,400 vs. \$45,300); this earnings difference by sex was also observed among Whites, Blacks, Hispanics, Asians, and young adults of two or more races.

The 2010 median annual earnings of young adults ages 25 to 34 who worked full time throughout a full year were \$36,200. Median earnings for these young adults ranged from \$21,100 for young adults who had not completed high school to \$50,300 for those who had earned a bachelor's or higher degree. For young adults who had earned a bachelor's or higher degree and held a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field of study, median earnings were \$58,200. Median earnings for these young adults ranged from \$44,300 for those with a bachelor's degree in agriculture/natural resources to \$68,400 for young adults with a bachelor's degree in engineering/engineering technologies. Median earnings for young adults also differed by sex, race/ethnicity, nativity, and citizenship status.

Young adults whose highest level of educational attainment was high school completion had median

earnings of \$29,200 in 2010. Median earnings for males in this group exceeded those for females by about \$5,100 (\$30,200 vs. \$25,100). Median earnings were also higher for male than female high school completers among Whites, Blacks, Hispanics, Asians, and Native Hawaiians/Pacific Islanders. For example, the earnings gap between Black males and females in this group was \$3,600. Concerning racial/ethnic differences, median earnings were lower for Black (\$25,200), Hispanic (\$25,200), and American Indian (\$24,700) young adult high school completers than for Native Hawaiian/Pacific Islander (\$34,500), White (\$30,200), Asian (\$29,900), and young adult high school completers of two or more races (\$29,800). Similar differences in earnings by race/ethnicity were observed among male young adults in this group. With regard to nativity, Hispanic high school completers who were born within the United States out-earned their peers who were born elsewhere (\$29,100 vs. \$23,400). There was no measurable difference in

**Figure 45-1. Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34, by sex, race/ethnicity, and highest level of educational attainment: 2010**



<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *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. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. Detail may not sum to totals because of rounding. Reporting standards for at least some data for Native Hawaiian/Pacific Islander males and females, American Indian males and females, and Alaska Native males and females were not met; therefore, data for males and females in these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity. Science, technology, engineering, and mathematics (STEM) fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

earnings between Asian high school completers who were born in the United States and their foreign-born peers (\$30,100 vs. \$28,100). Regarding citizenship, median earnings for those who had completed high school were lower for noncitizens (\$23,900) than for U.S.-born citizens and naturalized citizens (\$30,200 and \$29,000, respectively).

Median annual earnings for young adults with a bachelor's or higher degree were \$50,300 in 2010. Male earnings exceeded female earnings by about \$9,100 (\$54,400 vs. \$45,300); this difference by sex was also observed among Whites, Blacks, Hispanics, Asians, and young adults of two or more races. For instance, the earnings difference by sex for Hispanics was around \$6,500 (\$49,800 vs. \$43,200). Several differences in earnings were observed by race/ethnicity overall and among males and females. Asian young adults with a bachelor's or higher degree earned more than their peers in the other racial/ethnic groups (\$60,200 vs. \$37,900 to \$50,000, respectively) and Hispanics (\$45,300) earned more than Blacks (\$43,200) and American Indians (\$37,900); similar patterns also held among males. Hispanic young adults with a bachelor's or higher degree who were born within the United States had higher median earnings than their foreign-born counterparts (\$47,200 vs. \$40,300), whereas Asian young adults who were born within the United States had lower median earnings than their foreign-born counterparts (\$57,300 vs.

\$60,300). Median earnings for noncitizens (\$55,000) and naturalized citizens with a bachelor's or higher degree (\$51,700) were higher than those for U.S.-born citizens (\$48,400); earnings were also higher for non-U.S. citizens than for naturalized citizens.

For young adults with a bachelor's or higher degree who had earned a bachelor's degree in a STEM field (STEM graduates), median annual earnings were \$58,200; male earnings exceeded those for females by about \$8,200 (\$60,400 vs. \$52,200). This pattern by sex also held for Whites, Blacks, Hispanics, Asians, and young adults of two or more races. For example, the earnings gap between males and females was about \$7,100 for Hispanics in this group (\$53,300 vs. \$46,200). Median earnings were higher for Asian STEM graduates (\$66,400) than their peers in the other racial/ethnic groups (\$44,100 to \$56,300). This pattern was also found among both the male and female subgroups. Hispanic STEM graduates who were born within the United States had higher median earnings than their peers who were born outside of the United States (\$53,100 vs. \$44,400). No measurable differences were found between the median earnings of Asian STEM graduates who were born within the United States and their peers not born in the United States (\$63,800 vs. \$67,800). Median earnings for both naturalized citizens (\$62,600) and noncitizens (\$60,400) exceeded those for U.S.-born citizens (\$55,800) among STEM graduates.

## Technical Notes

Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *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. *High school completion* includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate. STEM fields, as defined here, include agriculture and

natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. Thus, this indicator provides information on the percentage of graduates in undergraduate STEM fields, but does not provide an indication of the percentage of graduates in other fields who also took significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history). Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

**Table 45-1. Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	High school completion or higher								Percentage of persons ages 25 to 34 who were full-time, full-year wage and salary workers in 2010
	Total	Less than high school completion	Bachelor's or higher degree						
			Total	High school completion <sup>1</sup>	Some college or associate's degree	Bachelor's degree in a STEM <sup>2</sup> field	Bachelor's degree in a non-STEM <sup>2</sup> field		
<b>Total<sup>3</sup></b>	<b>\$36,200</b>	<b>\$21,100</b>	<b>\$38,200</b>	<b>\$29,200</b>	<b>\$33,200</b>	<b>\$50,300</b>	<b>\$58,200</b>	<b>\$45,300</b>	<b>65.3</b>
Sex									
Male	39,200	23,100	40,300	30,200	37,300	54,400	60,400	50,300	69.5
Female	34,300	18,100	35,200	25,100	30,100	45,300	52,200	42,800	60.5
Race/ethnicity									
White	40,300	26,200	40,300	30,200	35,200	50,000	56,300	45,800	66.7
Black	30,200	20,100	30,200	25,200	30,100	43,200	49,900	40,300	62.2
Hispanic	28,200	20,100	31,400	25,200	32,200	45,300	50,100	45,200	63.0
Asian	50,200	21,000	50,300	29,900	34,200	60,200	66,400	50,400	68.8
Native Hawaiian/Pacific Islander	34,800	‡	‡	34,500	30,000	48,600	‡	‡	61.5
American Indian/Alaska Native <sup>4</sup>	30,200	24,600	31,200	25,100	30,100	38,100	44,100	36,500	56.0
American Indian	30,200	24,000	30,800	24,700	30,100	37,900	44,600	36,100	55.3
Alaska Native	37,500	‡	‡	‡	‡	‡	‡	‡	48.0
Two or more races	38,100	23,200	39,200	29,800	33,200	48,300	55,200	45,300	59.0
Race/ethnicity by sex									
Male									
White	42,300	29,200	42,300	33,500	40,300	55,200	60,400	50,400	71.8
Black	31,800	23,100	32,200	27,600	31,200	45,300	51,800	42,200	62.6
Hispanic	28,200	20,900	32,200	27,200	35,200	49,800	53,300	47,300	66.1
Asian	50,400	23,000	53,300	30,200	35,200	63,100	69,900	53,000	73.3
Native Hawaiian/Pacific Islander	35,100	‡	‡	35,100	29,500	49,300	‡	‡	63.0
American Indian/Alaska Native <sup>4</sup>	33,500	27,900	33,800	30,000	33,100	39,300	41,900	37,900	59.0
American Indian	32,900	26,000	33,500	28,300	33,300	39,500	43,800	37,300	59.4
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	45.7
Two or more races	40,300	25,400	41,300	30,200	36,200	54,500	60,400	50,000	63.8

See notes at end of table.

**Table 45-1. Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34, by highest level of educational attainment, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	High school completion or higher								Percentage of persons ages 25 to 34 who were full-time, full-year wage and salary workers in 2010
	Total	Less than high school completion	Bachelor's or higher degree						
			Total	High school completion <sup>1</sup>	Some college or associate's degree	Total	Bachelor's degree in a STEM <sup>2</sup> field	Bachelor's degree in a non-STEM <sup>2</sup> field	
<b>Total<sup>3</sup></b>	<b>\$36,200</b>	<b>\$21,100</b>	<b>\$38,200</b>	<b>\$29,200</b>	<b>\$33,200</b>	<b>\$50,300</b>	<b>\$58,200</b>	<b>\$45,300</b>	<b>65.3</b>
Race/ethnicity by sex									
Female									
White	36,200	20,900	36,300	25,200	30,200	45,300	51,400	42,300	60.8
Black	30,100	18,100	30,100	24,000	27,700	41,300	48,000	40,300	61.9
Hispanic	28,100	17,200	30,200	23,900	30,100	43,200	46,200	42,800	58.1
Asian	46,200	19,600	48,100	25,500	30,200	56,100	61,900	50,100	63.8
Native Hawaiian/Pacific Islander	32,200	‡	‡	24,000	29,900	‡	‡	‡	59.6
American Indian/Alaska Native <sup>4</sup>	28,700	18,200	29,500	22,100	28,000	36,800	‡	‡	52.6
American Indian	28,100	‡	‡	22,300	28,200	36,300	‡	‡	51.0
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	50.7
Two or more races	35,200	19,900	35,300	26,900	30,000	44,100	47,300	42,300	53.8
Nativity									
Hispanic									
Born within the United States <sup>5</sup>	33,200	24,100	35,200	29,100	33,200	47,200	53,100	45,300	65.0
Born outside the United States	23,500	20,100	27,200	23,400	30,000	40,300	44,400	40,200	61.2
Asian									
Born within the United States <sup>5</sup>	49,900	23,800	50,000	30,100	35,000	57,300	63,800	53,300	70.3
Born outside the United States	50,200	20,100	50,300	28,100	33,200	60,300	67,800	50,300	68.3
Citizenship status									
U.S.-born citizen	37,800	25,100	38,300	30,200	33,900 !	48,400	55,800	45,300	65.8
Naturalized citizen	39,300	24,100 !	40,300	29,000	33,200	51,700	62,600	48,200	70.2
Noncitizen	25,800	20,100	32,000	23,900	28,100	55,000	60,400	45,300	60.7

! Interpret data with caution. The coefficient of variation (CV) is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes a high school diploma or an equivalent credential, including a General Educational Development (GED) certificate.

<sup>2</sup> Science, technology, engineering, and mathematics (STEM) fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. This indicator provides information on the percentage of graduates in STEM fields, but does not provide an indication of the percentage of graduates in other fields who also take significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history).

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>4</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>5</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *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. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

**Table 45-2. Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Science, technology, engineering, and mathematics (STEM) <sup>1</sup> fields of study										Non-STEM fields of study			
	Total	Total	Agricul- ture/ natural resources	Architec- ture	Computer and infor- mation sciences	Engineer- ing/ engineer- ing tech- nologies	Biology/ bio- medical sciences	Math- ematics/ statistics	Physical sciences	Health profes- sions/ clinical sciences	Total	Business	Educa- tion	Other
<b>Total<sup>2</sup></b>	<b>\$50,300</b>	<b>\$58,200</b>	<b>\$44,300</b>	<b>\$49,900</b>	<b>\$62,400</b>	<b>\$68,400</b>	<b>\$50,300</b>	<b>\$55,000</b>	<b>\$50,300</b>	<b>\$53,800</b>	<b>\$45,300</b>	<b>\$50,400</b>	<b>\$40,300</b>	<b>\$45,300</b>
Sex														
Male	54,400	60,400	45,200	50,500	63,400	68,800	50,300	59,600	50,200	60,100	50,300	55,200	43,600	49,300
Female	45,300	52,200	40,300	47,600	56,200	66,400	50,300	49,900	50,200	52,300	42,800	48,300	40,300	42,300
Race/ethnicity														
White	50,000	56,300	44,200	49,500	62,400	66,800	50,300	54,900	50,300	54,100	45,800	52,400	40,300	45,300
Black	43,200	49,900	50,800	‡	49,600	61,800	44,600	47,700	43,500	49,800 !	40,300	44,300	40,800	40,200
Hispanic	45,300	50,100	39,300	50,300	54,500	58,800	45,200	48,400	47,300	48,000	45,200	47,200	40,300	44,200
Asian	60,200	66,400	37,100	56,400	69,600	72,200	51,900	67,100	49,800	60,400	50,400	53,300	40,600	50,200
Native Hawaiian/ Pacific Islander	48,600	58,300	‡	‡	‡	‡	‡	‡	‡	‡	46,200	‡	‡	‡
American Indian/ Alaska Native <sup>3</sup>	38,100	44,100	‡	‡	‡	‡	‡	‡	‡	‡	36,500	44,500	‡	35,300
American Indian	37,900	44,600	‡	‡	‡	‡	‡	‡	‡	‡	36,100	38,200	‡	35,600
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	48,300	55,200	‡	‡	61,200	65,500	50,000	‡	‡	45,300	45,300	53,300	38,300	45,300
Race/ethnicity by sex														
Male														
White	55,200	60,400	45,300	50,000	63,400	67,400	51,800	59,300	50,200	60,300	50,400	57,100	44,900	50,300
Black	45,300	51,800	‡	‡	50,600	63,300	44,600	‡	‡	45,100	42,200 !	45,200	39,700	40,500
Hispanic	49,800	53,300	40,000	53,300	57,700	58,300	47,300	46,600	50,200	58,100	47,300	50,000	39,500	45,900
Asian	63,100	69,900	38,000	56,800	70,300	72,500	50,200	69,800	50,100	65,700	53,000	54,200	49,400	51,500
Native Hawaiian/ Pacific Islander	49,300	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native <sup>3</sup>	39,300	41,900	‡	‡	‡	‡	‡	‡	‡	‡	37,900	‡	‡	35,700
American Indian	39,500	43,800	‡	‡	‡	‡	‡	‡	‡	‡	37,300	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	54,500	60,400	‡	‡	61,000	69,600	54,300	‡	‡	‡	50,000	57,900	‡	48,500

See notes at end of table.

**Table 45-2. Median annual earnings of full-time, full-year wage and salary workers ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Science, technology, engineering, and mathematics (STEM) <sup>1</sup> fields of study										Non-STEM fields of study			
	Total	Total	Agriculture/natural resources	Architecture	Computer and information sciences	Engineering/engineering technologies	Biology/biomedical sciences	Mathematics/statistics	Physical sciences	Health professions/clinical sciences	Total	Business	Education	Other
<b>Total<sup>2</sup></b>	<b>\$50,300</b>	<b>\$58,200</b>	<b>\$44,300</b>	<b>\$49,900</b>	<b>\$62,400</b>	<b>\$68,400</b>	<b>\$50,300</b>	<b>\$55,000</b>	<b>\$50,300</b>	<b>\$53,800</b>	<b>\$45,300</b>	<b>\$50,400</b>	<b>\$40,300</b>	<b>\$45,300</b>
Race/ethnicity by sex														
Female														
White	45,300	51,400	40,400	45,200	50,300	65,300	50,300	50,000	50,300	52,900	42,300	49,300	40,200	42,300
Black	41,300	48,000	‡	‡	43,700	58,900	44,300	‡	‡	50,200	40,300	43,000	41,400	39,200
Hispanic	43,200	46,200	33,700	‡	42,400	61,500	43,200	‡	38,600	47,700	42,800 !	44,900	41,300	42,200
Asian	56,100	61,900	‡	‡	65,100	70,500	55,500	56,700	46,700	60,000	50,100	52,200	39,800	49,600
Native Hawaiian/ Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/ Alaska Native <sup>3</sup>	36,800	‡	‡	‡	‡	‡	‡	‡	‡	‡	35,100	‡	‡	35,100
American Indian	36,300	‡	‡	‡	‡	‡	‡	‡	‡	‡	34,200 !	‡	‡	35,200
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	44,100	47,300	‡	‡	‡	‡	49,400	‡	‡	47,400	42,300	51,200	37,400	40,300
Nativity														
Hispanic														
Born within the United States <sup>4</sup>	47,200	53,100	42,100	53,400	55,000	64,500	47,300	45,300	49,800	49,200	45,300	49,500	42,300	45,200
Born outside the United States	40,300	44,400	‡	‡	50,400	44,300	41,600	‡	‡	42,900 !	40,200	40,300	38,000	40,200
Asian														
Born within the United States <sup>4</sup>	57,300	63,800	‡	‡	67,600	70,100	56,300	‡	51,700	65,200	53,300	54,900	49,000	52,700
Born outside the United States	60,300	67,800	40,200	54,800	69,600	72,900	50,200	69,700	49,400	59,600	50,300	51,900	37,000	49,400
Citizenship status														
U.S.-born citizen	48,400	55,800	44,300	50,000	60,200	66,500	50,300	54,700	50,300	53,300	45,300	51,200	40,300	45,200
Naturalized citizen	51,700	62,600	49,900	48,700	65,500	70,500	53,600	52,600	51,200	59,900	48,200	49,800	42,300	47,300
Noncitizen	55,000	60,400	38,500	44,300	67,700	69,800	45,000	60,200	47,100	52,100	45,300	50,200	30,100	44,600

! Interpret data with caution. The coefficient of variation (CV) is 30 percent or greater.

‡ Reporting standards not met. There are too few cases.

<sup>1</sup> Science, technology, engineering, and mathematics (STEM) fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. This indicator provides information on the percentage of graduates in STEM fields, but does not provide an indication of the percentage of graduates in other fields who also take significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history).

<sup>2</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>3</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>4</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Employment status* refers to the full calendar week prior to the week when the respondent answered the questions. *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. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

# Employment of Young Adults With STEM Degrees

*Fifty-six percent of young adults ages 25 to 34 with a bachelor's or higher degree who held a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field were employed in a STEM occupation in 2010. Among these graduates, higher percentages of males than females were employed as computer scientists and engineers/architects, while the reverse was true for their peers who were medical professionals.*

Thirty-one percent (or 13 million) of the 41 million young adults ages 25 to 34 in the United States had earned a bachelor's or higher degree in 2010 (see also indicator 43). Twenty-nine percent of these young adults had an undergraduate degree in a science, technology, engineering, or mathematics (STEM) field of study. These STEM graduates included those with undergraduate majors in engineering/engineering technologies (8 percent), health professions/clinical sciences (6 percent), biology/biomedical sciences (6 percent), computer and information sciences (4 percent), physical sciences (2 percent), agriculture/natural resources (2 percent), mathematics/statistics (1 percent), and architecture (1 percent).

In 2010, about 95 percent of young adults with a bachelor's or higher degree in any field were employed, with a range of 86 percent for young adults with an undergraduate degree in architecture to 97 percent each for young adults with degrees in health professions/clinical sciences or in education (see indicator 44). Employment percentages among young adults with undergraduate degrees in the various fields of study also differed by demographic characteristics such as sex, race/ethnicity, nativity, and citizenship status.

Fifty-six percent of young adult STEM graduates were employed in a STEM occupation in 2010; the specific occupations follow: medical professionals (23 percent), computer scientists (14 percent), engineers/architects (11 percent), scientists (5 percent), health professionals (1 percent), and agriculture/forestry workers (less than 1 percent). Forty-four percent of young adult STEM graduates worked in a non-STEM occupation, including 18 percent who worked as business workers/managers and 8 percent as educators.

For STEM college graduates working in STEM occupations in 2010, higher percentages of males than females were employed as computer scientists and engineers/architects. This pattern by sex was also observed

among Whites, Blacks, Hispanics, Asians, and persons of two or more races. For example, 15 percent of Hispanic males with a STEM undergraduate degree were employed as engineers/architects versus 6 percent of Hispanic females. Differences in the percentage employed in these STEM occupations were also found by race/ethnicity (overall and among the male and female subgroups). For instance, a higher percentage of Asian males with a STEM undergraduate degree were employed as computer scientists than their peers in the other racial/ethnic groups (35 percent vs. 10 to 19 percent, respectively). Employment in the computer science profession for STEM undergraduates was also higher among males for Whites (16 percent) and Blacks (17 percent) than for Hispanics (13 percent).

The reverse pattern by sex was observed for STEM graduates working in a medical profession. Higher percentages of females than males who were White, Black, Hispanic, Asian, and of two or more races were employed as medical professionals in 2010. For example, 33 percent of Black females with these credentials were employed in a medical profession, compared with 10 percent of Black males. Differences in the percentage employed in the medical professions were also found by race/ethnicity (overall and among the male and female subgroups). For example, higher percentages of White and Asian males who graduated with STEM degrees than Hispanic males were employed as medical professionals (11 percent each vs. 9 percent).

Among scientists, no measurable difference by sex was found in the percentage of STEM graduates who were employed, although a few differences among males and females were found by race/ethnicity. For instance, the percentage employed as scientists was higher for White males (6 percent) than for their Hispanic (3 percent) and Asian peers (4 percent); the apparent difference between White males and Black males (4 percent) was not measurable.

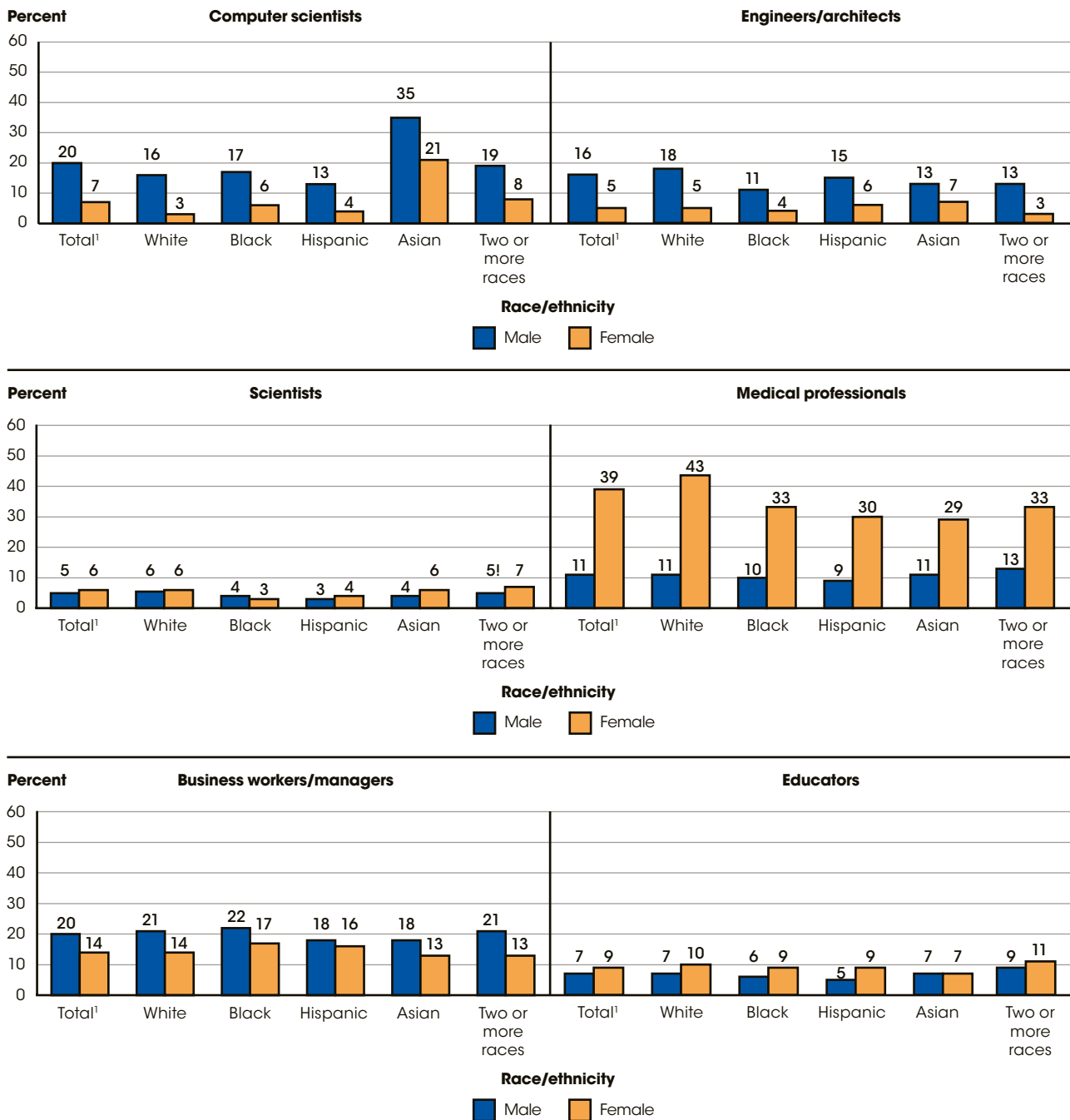


## Technical Notes

Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Employment estimates are for those who were in the labor force, with reference to the full calendar week prior to the week when the respondent answered the questions. Science, technology, engineering, and mathematics (STEM) fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. Respondents were allowed to

indicate two major undergraduate fields of study; data reflect the first reported field of study. Thus, this indicator provides information on the percentage of graduates in undergraduate STEM fields, but does not provide an indication of the percentage of graduates in other fields who also took significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history). Scientists include those in various disciplines such as astronomers, chemists, and social scientists. Medical professionals include medical doctors, pharmacists, registered nurses and nurse practitioners, and emergency medical technicians. Health professionals include various support personnel such as occupational therapy aides and dental assistants. Born within the United States refers to the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

**Figure 46-1. Percentage of young adults ages 25 to 34 with a bachelor's or higher degree who have a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field, are in the labor force, and are employed, by occupation type, race/ethnicity, and sex: 2010**



<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the figure.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. STEM fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. *Labor force status* refers to the full calendar week prior to the week when the respondent answered the questions. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. Reporting standards for at least some data for Native Hawaiian/Pacific Islander males and females, American Indian males and females, and Alaska Native males and females were not met; therefore, data for males and females in these racial groups are not shown in the figure. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

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**Table 46-1. Number, percentage, and percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Population of young adults ages 25 to 34	Percent of population with a bachelor's or higher degree	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field					
			Total	Total	Agriculture/natural resources	Architecture	Computer and information sciences	Engineering/engineering technologies
<b>Total<sup>1</sup></b>	<b>40,886,000</b>	<b>31.2</b>	<b>100.0</b>	<b>29.1</b>	<b>1.7</b>	<b>0.7</b>	<b>4.1</b>	<b>7.7</b>
Sex								
Male	20,494,000	27.3	100.0	35.3	2.1	1.0	6.8	13.6
Female	20,392,000	35.2	100.0	24.3	1.4	0.5	2.1	3.0
Race/ethnicity								
White	23,713,000	37.4	100.0	26.0	2.0	0.7	3.0	6.1
Black	5,168,000	19.0	100.0	25.5	0.7	0.5	4.3	4.9
Hispanic	8,397,000	13.0	100.0	25.2	1.0	1.2	3.7	7.7
Asian	2,431,000	62.3	100.0	51.9	0.8	0.9	10.6	18.9
Native Hawaiian/Pacific Islander	76,000	13.9	100.0	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	277,000	12.1	100.0	29.2	4.3	‡	2.7 !	8.3
American Indian	229,000	12.1	100.0	28.1	4.8	‡	‡	8.2
Alaska Native	15,000	‡	100.0	‡	‡	‡	‡	‡
Two or more races	735,000	32.5	100.0	29.9	1.0	0.6	4.2	7.4
Race/ethnicity by sex								
Male								
White	11,969,000	32.9	100.0	31.2	2.5	1.0	5.6	11.2
Black	2,438,000	14.9	100.0	29.1	0.9	1.0	7.0	9.5
Hispanic	4,376,000	10.5	100.0	33.5	1.4	1.8	6.3	14.1
Asian	1,133,000	61.2	100.0	62.7	0.7	0.8	13.7	29.2
Native Hawaiian/Pacific Islander	40,000	15.7	100.0	‡	‡	‡	‡	6.9 !
American Indian/Alaska Native <sup>2</sup>	137,000	10.2	100.0	46.4	7.9 !	‡	6.1 !	14.2
American Indian	113,000	10.6	100.0	44.8	8.3 !	‡	‡	15.7
Alaska Native	6,000	‡	100.0	‡	‡	‡	‡	‡
Two or more races	358,000	29.6	100.0	35.9	1.0 !	0.7 !	7.4	12.4
Female								
White	11,744,000	41.9	100.0	21.9	1.6	0.5	1.0	1.9
Black	2,730,000	22.7	100.0	23.3	0.6	0.2	2.8	2.1
Hispanic	4,021,000	15.8	100.0	19.2	0.8	0.9	1.8	3.1
Asian	1,298,000	63.3	100.0	42.9	0.8	0.9	8.0	10.2
Native Hawaiian/Pacific Islander	36,000	11.9	100.0	30.6	‡	‡	‡	9.7
American Indian/Alaska Native <sup>2</sup>	140,000	13.9	100.0	17.0	‡	‡	‡	4.1
American Indian	116,000	13.5	100.0	15.3	‡	‡	‡	‡
Alaska Native	8,000	‡	100.0	‡	‡	‡	‡	‡
Two or more races	377,000	35.3	100.0	25.2	1.0	0.6 !	1.7	3.4

See notes at end of table.

**Table 46-1. Number, percentage, and percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Population of young adults ages 25 to 34	Percent of population with a bachelor's or higher degree	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field					
			Total	Total	Agriculture/ natural resources	Architecture	Computer and information sciences	Engineering/ engineering technologies
<b>Total<sup>1</sup></b>	<b>40,886,000</b>	<b>31.2</b>	<b>100.0</b>	<b>29.1</b>	<b>1.7</b>	<b>0.7</b>	<b>4.1</b>	<b>7.7</b>
Nativity								
Hispanic								
Born within the United States <sup>3</sup>	4,036,000	18.1	100.0	21.3	1.1	0.9	3.2	5.1
Born outside the United States	4,361,000	8.3	100.0	33.2	1.0	2.0	4.6	13.1
Asian								
Born within the United States <sup>3</sup>	647,000	60.6	100.0	37.9	0.9	0.8	5.8	10.0
Born outside the United States	1,784,000	62.9	100.0	56.8	0.7	0.9	12.3	22.0
Citizenship status								
U.S.-born citizen	33,020,000	32.0	100.0	25.3	1.8	0.7	3.0	5.7
Naturalized citizen	2,053,000	37.9	100.0	37.8	0.5	0.9	8.0	8.9
Noncitizen	5,814,000	24.6	100.0	52.3	1.1	1.1	10.1	21.5

See notes at end of table.

**Table 46-1. Number, percentage, and percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field				Bachelor's degree in a non-STEM field			
	Biology/ biomedical sciences	Mathematics/ statistics	Physical sciences	Health professions/ clinical sciences	Total	Business	Education	All other fields of study
<b>Total<sup>1</sup></b>	<b>5.7</b>	<b>1.2</b>	<b>1.8</b>	<b>6.2</b>	<b>70.9</b>	<b>20.1</b>	<b>9.4</b>	<b>41.4</b>
Sex								
Male	5.4	1.5	2.4	2.5	64.7	22.9	4.5	37.3
Female	5.9	1.0	1.4	9.1	75.7	18.0	13.2	44.6
Race/ethnicity								
White	5.4	1.1	1.7	6.0	74.0	19.7	10.9	43.4
Black	4.9	0.9	1.4	7.8	74.5	23.7	8.0	42.8
Hispanic	4.5	0.9	1.3	4.8	74.8	22.4	8.8	43.6
Asian	8.3	2.0	3.2	7.3	48.1	18.8	2.5	26.7
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	74.2	21.3	5.7 !	47.2
American Indian/Alaska Native <sup>2</sup>	5.6	‡	2.2 !	5.1	70.8	19.9	13.4	37.4
American Indian	4.9	‡	2.2 !	5.0 !	71.9	20.0	14.3	37.7
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	7.4	1.3	2.4	5.5	70.1	17.8	5.6	46.7
Race/ethnicity by sex								
Male								
White	5.0	1.5	2.2	2.1	68.8	23.8	5.1	39.9
Black	4.5	1.1	2.0	3.1	70.9	25.9	5.6	39.4
Hispanic	4.7	1.4	1.9	2.1	66.5	23.2	4.5	38.8
Asian	7.9	2.2	3.8	4.2	37.3	16.3	0.8	20.3
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	77.4	28.0	‡	46.4
American Indian/Alaska Native <sup>2</sup>	10.5	‡	4.3 !	‡	53.6	18.7	3.9 !	31.1
American Indian	9.4 !	‡	‡	‡	55.2	18.1	4.5 !	32.6
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	6.7	0.9 !	3.5	3.2	64.1	19.9	4.0	40.2
Female								
White	5.7	0.9	1.3	9.1	78.1	16.5	15.5	46.2
Black	5.2	0.8	1.1	10.5	76.7	22.4	9.4	44.8
Hispanic	4.3	0.6	0.9	6.7	80.8	21.8	11.9	47.1
Asian	8.7	1.8	2.7	9.8	57.1	20.9	4.0	32.1
Native Hawaiian/Pacific Islander	‡	‡	‡	5.1	69.4	11.1 !	‡	48.6
American Indian/Alaska Native <sup>2</sup>	2.0 !	‡	‡	7.8	83.0	20.9	20.2	42.0
American Indian	‡	‡	‡	‡	84.7	21.4	21.8	41.6
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	7.9	1.7	1.5	7.3	74.8	16.1	6.9	51.8

See notes at end of table.

**Table 46-1. Number, percentage, and percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field				Bachelor's degree in a non-STEM field			
	Biology/ biomedical sciences	Mathematics/ statistics	Physical sciences	Health professions/ clinical sciences	Total	Business	Education	All other fields of study
<b>Total<sup>1</sup></b>	<b>5.7</b>	<b>1.2</b>	<b>1.8</b>	<b>6.2</b>	<b>70.9</b>	<b>20.1</b>	<b>9.4</b>	<b>41.4</b>
Nativity								
Hispanic								
Born within the United States <sup>3</sup>	4.7	0.7	1.0	4.6	78.7	21.2	8.7	48.8
Born outside the United States	4.0	1.3	2.0	5.2	66.8	24.8	8.9	33.1
Asian								
Born within the United States <sup>3</sup>	10.9	1.5	1.6	6.4	62.1	20.0	2.7	39.4
Born outside the United States	7.4	2.2	3.8	7.6	43.2	18.4	2.5	22.3
Citizenship status								
U.S.-born citizen	5.4	1.1	1.5	6.0	74.7	20.0	10.4	44.3
Naturalized citizen	7.9	1.4	2.1	8.1	62.2	25.2	4.1	32.9
Noncitizen	6.1	2.2	3.8	6.4	47.7	18.7	4.3	24.7

<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>2</sup> Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>4</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>5</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. STEM fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. This indicator provides information on the percentage of graduates in undergraduate STEM fields, but does not provide an indication of the percentage of graduates in other fields who also took significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history). Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

**Table 46-2. Percentage of young adults ages 25 to 34 with a bachelor's or higher degree who were in the labor force and were employed in any occupation, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field						
	Total	Total	Agriculture/ natural resources	Architecture	Computer and information sciences	Engineering/ engineering technologies	Biology/ biomedical sciences
<b>Total<sup>1</sup></b>	<b>94.9</b>	<b>95.6</b>	<b>95.4</b>	<b>86.3</b>	<b>95.1</b>	<b>95.3</b>	<b>96.0</b>
Sex							
Male	94.8	95.5	96.0	87.3	95.5	95.6	95.6
Female	95.0	95.9	94.5	84.3	93.8	94.5	96.2
Race/ethnicity							
White	95.7	96.6	96.0	91.0	95.8	96.2	96.8
Black	91.1	91.4	87.1	68.3	89.5	89.4	92.9
Hispanic	93.5	93.5	95.0	80.5	96.8	91.5	94.0
Asian	93.6	95.1	91.1	76.1	94.7	96.0	94.9
Native Hawaiian/Pacific Islander	96.5	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	96.6	96.4	‡	‡	‡	‡	‡
American Indian	96.0	95.6	‡	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	94.7	94.4	‡	‡	96.0	93.0	95.3
Race/ethnicity by sex							
Male							
White	95.4	96.0	96.2	89.8	96.0	96.2	96.2
Black	90.8	88.8	‡	‡	87.6	88.3	93.6
Hispanic	94.0	94.5	97.6	82.9	97.6	93.6	95.9
Asian	94.5	96.0	100.0	87.1	95.6	96.3	94.2
Native Hawaiian/Pacific Islander	97.1	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	95.0	94.8	‡	‡	‡	‡	‡
American Indian	94.2	93.7	‡	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	94.5	94.1	100.0	55.4 !	94.9	92.9	97.2
Female							
White	96.0	97.2	95.8	93.3	94.4	96.2	97.2
Black	91.4	93.5	‡	‡	92.4	92.3	92.6
Hispanic	93.1	92.2	91.4	76.0	94.6	82.7	92.5
Asian	92.7	93.6	79.8	64.8	92.9	95.2	95.5
Native Hawaiian/Pacific Islander	95.3	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	98.0	‡	‡	‡	‡	‡	‡
American Indian	97.5	‡	‡	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	94.8	94.7	‡	‡	‡	93.6	94.0

See notes at end of table.



**Table 46-2. Percentage of young adults ages 25 to 34 with a bachelor's or higher degree who were in the labor force and were employed in any occupation, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field						
	Total	Total	Agriculture/ natural resources	Architecture	Computer and information sciences	Engineering/ engineering technologies	Biology/ biomedical sciences
<b>Total<sup>1</sup></b>	<b>94.9</b>	<b>95.6</b>	<b>95.4</b>	<b>86.3</b>	<b>95.1</b>	<b>95.3</b>	<b>96.0</b>
Nativity							
Hispanic							
Born within the United States <sup>3</sup>	94.1	94.4	92.8	82.0	96.1	94.0	94.4
Born outside the United States	92.1	92.3	‡	79.0	97.9	89.3	93.1
Asian							
Born within the United States <sup>3</sup>	93.5	94.2	‡	‡	92.8	94.3	93.7
Born outside the United States	93.7	95.3	97.0	71.2	95.1	96.3	95.5
Citizenship status							
U.S.-born citizen	95.3	96.1	95.4	88.2	95.4	95.8	96.1
Naturalized citizen	92.8	93.8	100.0	82.6	94.0	92.9	95.1
Noncitizen	93.1	94.7	92.7	76.0	94.9	94.9	95.4

See notes at end of table.

**Table 46-2. Percentage of young adults ages 25 to 34 with a bachelor's or higher degree who were in the labor force and were employed in any occupation, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field			Bachelor's degree in a non-STEM field			
	Mathematics/ statistics	Physical sciences	Health professions/ clinical sciences	Total	Business	Education	All other fields of study
<b>Total<sup>1</sup></b>	<b>95.5</b>	<b>96.4</b>	<b>97.1</b>	<b>94.6</b>	<b>94.7</b>	<b>97.0</b>	<b>94.1</b>
Sex							
Male	95.6	96.4	96.4	94.5	94.9	97.2	93.8
Female	95.5	96.4	97.3	94.7	94.3	96.9	94.2
Race/ethnicity							
White	95.4	97.1	98.1	95.4	95.7	97.5	94.8
Black	95.8	91.2	94.4	91.0	90.6	95.0	90.6
Hispanic	94.0	95.1	96.3	93.5	93.3	95.3	93.2
Asian	96.6	95.9	94.9	91.9	91.8	92.8	92.0
Native Hawaiian/Pacific Islander	‡	‡	‡	96.5	‡	‡	96.0
American Indian/Alaska Native <sup>2</sup>	‡	‡	‡	96.7	97.7	97.9	95.8
American Indian	‡	‡	‡	96.2	97.3	97.8	95.0
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	‡	96.5	94.4	94.8	97.5	96.6	93.5
Race/ethnicity by sex							
Male							
White	95.3	96.7	97.2	95.1	95.8	97.9	94.2
Black	95.4	87.4	88.4	91.6	90.6	97.2	91.4
Hispanic	94.3	93.2	97.6	93.7	93.0	92.9	94.2
Asian	98.2	98.4	97.1	91.8	91.9	93.7	91.6
Native Hawaiian/Pacific Islander	‡	‡	‡	97.9	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	‡	‡	‡	95.2	‡	‡	93.2
American Indian	‡	‡	‡	94.6	96.9	‡	92.3
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	83.7	97.8	97.0	94.7	97.9	89.8	93.5
Female							
White	95.6	97.6	98.2	95.7	95.5	97.3	95.2
Black	96.3	94.7	95.5	90.7	90.5	94.2	90.1
Hispanic	93.4	98.2	96.0	93.3	93.5	96.1	92.6
Asian	94.5	92.1	94.1	92.0	91.7	92.6	92.2
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	‡	‡	‡	97.5	98.0	97.5	97.3
American Indian	‡	‡	‡	97.1	97.6	‡	96.7
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	‡	‡	‡	94.9	97.0	100.0	93.5

**Table 46-2. Percentage of young adults ages 25 to 34 with a bachelor's or higher degree who were in the labor force and were employed in any occupation, by undergraduate field of study, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Bachelor's degree in a science, technology, engineering, or mathematics (STEM) field			Bachelor's degree in a non-STEM field			
	Mathematics/ statistics	Physical sciences	Health professions/ clinical sciences	Total	Business	Education	All other fields of study
<b>Total<sup>1</sup></b>	<b>95.5</b>	<b>96.4</b>	<b>97.1</b>	<b>94.6</b>	<b>94.7</b>	<b>97.0</b>	<b>94.1</b>
Nativity							
Hispanic							
Born within the United States <sup>2</sup>	94.7	93.7	96.7	94.0	94.6	96.0	93.4
Born outside the United States	93.2	96.7	95.4	92.1	90.5	93.9	92.7
Asian							
Born within the United States <sup>2</sup>	95.2	94.2	98.7	93.0	94.1	96.1	92.3
Born outside the United States	97.1	96.2	93.8	91.3	90.7	90.9	91.8
Citizenship status							
U.S.-born citizen	95.4	96.3	97.9	95.0	95.3	97.3	94.3
Naturalized citizen	91.6	95.3	94.3	92.1	91.8	93.1	92.3
Noncitizen	97.6	97.1	93.5	91.1	90.3	92.2	91.6

<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

<sup>2</sup> Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>3</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>4</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>5</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Labor force status* refers to the full calendar week prior to the week when the respondent answered the questions. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. STEM fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. This indicator provides information on the percentage of graduates in undergraduate STEM fields, but does not provide an indication of the percentage of graduates in other fields who also took significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history). Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.

**Table 46-3. Percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree who have a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field, are in the labor force, and are employed, by occupation type, sex, race/ethnicity, nativity, and citizenship status: 2010**

Sex, race/ethnicity, nativity, and citizenship status	Science, technology, engineering, or mathematics (STEM) occupation							
	Total	Total	Computer scientists	Engineers/architects	Scientists	Medical professionals	Health professionals	Agriculture and forestry workers
<b>Total<sup>1</sup></b>	<b>100.0</b>	<b>55.7</b>	<b>14.1</b>	<b>11.4</b>	<b>5.4</b>	<b>23.1</b>	<b>1.3</b>	<b>0.4</b>
Sex								
Male	100.0	53.0	19.8	16.3	5.1	10.7	0.6	0.5
Female	100.0	59.0	7.0	5.2	5.7	38.6	2.3	0.2
Race/ethnicity								
White	100.0	55.4	10.2	12.2	5.9	25.4	1.3	0.4
Black	100.0	48.1	11.0	7.0	3.7	23.0	3.0	0.3!
Hispanic	100.0	43.6	9.4	11.1	3.6	17.5	1.5	0.6!
Asian	100.0	64.2	29.4	10.4	5.2	18.1	0.8	0.2!
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	100.0	45.8	6.5!	18.7	‡	9.8	‡	‡
American Indian	100.0	46.4	‡	20.8	‡	9.8!	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	100.0	51.0	13.5	8.5	5.9	21.9	1.2!	‡
Race/ethnicity by sex								
Male								
White	100.0	51.7	15.7	18.3	5.7	10.9	0.5	0.5
Black	100.0	44.5	17.4	11.1	4.4	9.7	1.1!	0.7!
Hispanic	100.0	41.7	12.8	14.9	3.4	8.7	1.1!	0.8!
Asian	100.0	63.7	34.8	12.5	4.4	11.0	0.7	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	100.0	38.4	9.5!	19.8	‡	5.9!	‡	‡
American Indian	100.0	39.5	‡	23.9	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	100.0	49.4	18.6	13.0	4.5!	12.8	‡	‡
Female								
White	100.0	59.8	3.4	4.8	6.1	43.1	2.2	0.2
Black	100.0	50.8	6.1	4.0	3.2	33.1	4.4	‡
Hispanic	100.0	46.5	4.5	5.6	3.8	30.1	2.2	‡
Asian	100.0	64.9	21.2	7.2	6.4	28.8	1.1	‡
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	100.0	61.9	‡	‡	‡	18.2!	27.3!	‡
American Indian	‡	‡	‡	‡	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡
Two or more races	100.0	52.9	7.6	3.3!	7.4	32.6	2.0!	‡

See notes at end of table.

**Table 46-3. Percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree who have a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field, are in the labor force, and are employed, by occupation type, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Science, technology, engineering, or mathematics (STEM) occupation							
	Total	Total	Computer scientists	Engineers/architects	Scientists	Medical professionals	Health professionals	Agriculture and forestry workers
<b>Total<sup>1</sup></b>	<b>100.0</b>	<b>55.7</b>	<b>14.1</b>	<b>11.4</b>	<b>5.4</b>	<b>23.1</b>	<b>1.3</b>	<b>0.4</b>
Nativity								
Hispanic								
Born within the United States <sup>3</sup>	100.0	48.2	8.9	12.5	4.0	21.0	1.4	‡
Born outside the United States	100.0	37.3	10.2	9.1	3.1	12.6	1.6!	0.8!
Asian								
Born within the United States <sup>3</sup>	100.0	56.4	12.5	10.6	4.7	27.3	1.3!	‡
Born outside the United States	100.0	66.1	33.7	10.4	5.3	15.7	0.7	0.2!
Citizenship status								
U.S.-born citizen	100.0	54.5	9.9	12.0	5.2	25.7	1.4	0.4
Naturalized citizen	100.0	57.7	17.2	9.3	3.3	26.4	1.2	‡
Noncitizen	100.0	59.5	30.0	9.8	7.2	11.2	1.1	0.3!

See notes at end of table.

**Table 46-3. Percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree who have a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field, are in the labor force, and are employed, by occupation type, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Non-STEM occupation						
	Total	Business workers/ managers	Educators	Legal professionals	Human/ protective services workers	Military personnel	Other
<b>Total<sup>1</sup></b>	<b>44.3</b>	<b>17.5</b>	<b>7.8</b>	<b>1.0</b>	<b>1.6</b>	<b>0.4</b>	<b>15.9</b>
Sex							
Male	47.0	20.3	6.7	1.1	1.5	0.6	16.8
Female	41.0	14.1	9.2	0.9	1.7	0.2!	14.9
Race/ethnicity							
White	44.6	18.0	8.0	1.2	1.7	0.5	15.3
Black	51.9	19.1	7.7	0.7	3.4	0.8!	20.2
Hispanic	56.4	17.1	7.1	0.8	2.2	0.4!	28.8
Asian	35.8	15.9	7.1	0.7	0.7	0.1!	11.4
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	54.2	19.8	5.7!	‡	‡	‡	26.9
American Indian	53.6	19.5	‡	‡	‡	‡	25.8
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	49.0	17.2	9.9	‡	1.0!	‡	18.7
Race/ethnicity by sex							
Male							
White	48.3	21.3	6.7	1.3	1.6	0.7	16.6
Black	55.5	21.9	6.1	‡	3.2	1.2!	22.4
Hispanic	58.3	17.8	5.5	0.9!	2.0	0.7!	31.5
Asian	36.3	17.6	7.1	0.6	0.8	0.1!	10.1
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	61.6	23.1	‡	‡	‡	‡	31.3
American Indian	60.5	22.3!	‡	‡	‡	‡	29.4
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	50.6	20.6	8.8	‡	‡	‡	18.6
Female							
White	40.2	13.9	9.7	1.0	1.8	0.2!	13.7
Black	49.2	17.0	9.0	0.8!	3.5	‡	18.5
Hispanic	53.5	16.1	9.4	0.7!	2.4	‡	24.8
Asian	35.1	13.2	7.1	0.9	0.5	‡	13.3
Native Hawaiian/Pacific Islander	‡	‡	‡	‡	‡	‡	‡
American Indian/Alaska Native <sup>2</sup>	38.1	12.6!	‡	‡	‡	‡	17.5!
American Indian	‡	‡	‡	‡	‡	‡	‡
Alaska Native	‡	‡	‡	‡	‡	‡	‡
Two or more races	47.1	13.2	11.1	‡	‡	‡	18.9

See notes at end of table.

**Table 46-3. Percentage distribution of young adults ages 25 to 34 with a bachelor's or higher degree who have a bachelor's degree in a science, technology, engineering, or mathematics (STEM) field, are in the labor force, and are employed, by occupation type, sex, race/ethnicity, nativity, and citizenship status: 2010—Continued**

Sex, race/ethnicity, nativity, and citizenship status	Non-STEM occupation						
	Total	Business workers/managers	Educators	Legal professionals	Human/protective services workers	Military personnel	Other
<b>Total<sup>1</sup></b>	<b>44.3</b>	<b>17.5</b>	<b>7.8</b>	<b>1.0</b>	<b>1.6</b>	<b>0.4</b>	<b>15.9</b>
Nativity							
Hispanic							
Born within the United States <sup>3</sup>	51.8	17.7	7.5	1.1	2.4	0.6 !	22.6
Born outside the United States	62.7	16.4	6.5	‡	1.9 !	‡	37.3
Asian							
Born within the United States <sup>3</sup>	43.6	20.6	5.8	1.9	0.8 !	‡	14.3
Born outside the United States	33.9	14.7	7.5	0.4	0.6	‡	10.6
Citizenship status							
U.S.-born citizen	45.5	18.1	7.7	1.2	1.8	0.5	16.1
Naturalized citizen	42.3	19.0	4.9	0.7 !	1.4	0.4 !	15.8
Noncitizen	40.5	14.5	9.5	0.3	0.8	‡	15.4

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met. There are either too few cases or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Total includes other racial/ethnic groups not shown separately in the table.

<sup>2</sup> Includes persons reporting American Indian alone, Alaska Native alone, and persons from American Indian and/or Alaska Native tribes specified or unspecified.

<sup>3</sup> Born within the United States includes the 50 states, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, the Northern Marianas, and those born abroad of American parents.

NOTE: Estimates are for the entire population in the indicated age range, including persons in both households and group quarters. A *household* includes all the persons who occupy a housing unit. A *group quarters* is a nontypical household-type living arrangement where people live or stay in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents. Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. *Labor force status* refers to the full calendar week prior to the week when the respondent answered the questions. Respondents were allowed to indicate two major undergraduate fields of study; data reflect the first reported field of study. STEM fields, as defined here, include agriculture and natural resources, biology and biomedical sciences, computer and information sciences, engineering and engineering technologies, health professions and clinical sciences, mathematics and statistics, and physical sciences and science technologies. This indicator provides information on the percentage of graduates in undergraduate STEM fields, but does not provide an indication of the percentage of graduates in other fields who also took significant amounts of STEM coursework or those who have a second major in a STEM field. Data are assembled based on major field aggregations. In the major field aggregations that were not classified as STEM, some individual fields could be classified as STEM (such as econometrics within social sciences and history). Scientists include those in various disciplines such as astronomers, chemists, and social scientists. Medical professionals include medical doctors, pharmacists, registered nurses and nurse practitioners, and emergency medical technicians. Health professionals include various support personnel such as occupational therapy aides and dental assistants. The field of instruction for educators is not specified in the survey. Detail may not sum to totals because of rounding. Race categories exclude persons of Hispanic ethnicity.

SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010.



## Chapter 8

### **Multivariate Analyses of Immediate Postsecondary Enrollment and Degree Attainment**



The discussion of immediate postsecondary enrollment among 2004 high school seniors and degree attainment of 2004 beginning postsecondary students (see indicators 34 and 37, respectively) demonstrated a number of bivariate relationships between these outcome measures and students' sex and race/ethnicity. For example, among 2004 high school seniors, a higher percentage of females than males immediately enrolled in a postsecondary institution after graduating from high school (77 vs. 71 percent). Lower percentages of American Indians/Alaska Natives (60 percent), Hispanics (65 percent), Blacks (69 percent), and students of two or more races (65 percent) than Whites (77 percent) and Asians (86 percent) enrolled in postsecondary education immediately after high school graduation. Also, a higher percentage of 2003–04 beginning postsecondary female students than male students had attained some type of postsecondary degree (i.e., certificate, associate's, or bachelor's) by June 2009 (52 vs. 46 percent). The percentages of Blacks (37 percent), American Indian/Alaska Natives (38 percent), Hispanics (41 percent), and students of two or more races (47 percent) who attained some type of postsecondary degree were lower than the percentages of Whites (54 percent) and Asians (58 percent) who attained a degree.

These bivariate analyses compare the overall percentages for different groups of students without adjusting for student background characteristics. One of the limitations of bivariate analyses is that they compare information across groups without taking into account the influence of other factors that may also be related to differences. Multivariate analyses, such as logistic multiple regression models, provide information on whether group differences persist after controlling for other student, family, and school/institutional characteristics. This chapter presents results from two sets of logistic regression analyses that can provide answers to questions about postsecondary enrollment and degree attainment, such as "How is a high school student's participation in extracurricular activities associated with immediate enrollment in a postsecondary institution, holding other factors, such as socioeconomic status, constant?"

The purpose of this chapter is to identify student, family, and school/institutional factors that are significantly associated with the odds that a student will immediately enroll in a postsecondary institution after completing high school and the odds that a student will attain an associate's or bachelor's degree within 6 years of beginning postsecondary enrollment. By conducting separate logistic regression models for the overall sample as well as for each subgroup, associations between student characteristics and the two outcome variables can be presented for the full sample as well as separately for males and females; separately for Whites, Blacks, and Hispanics; and separately for males and females within each of these racial/ethnic groups. When attempting to examine the significance of interactions between variables, the nature of the survey data available for the analyses (e.g., smaller sample sizes for minority males and females, low variance

on some independent groups for some of the smaller subgroups) yielded poor results and precluded the use of interaction terms in the final models. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes. Also, for the Black male and female and Hispanic male and female subgroup models, some of the results that appear to be substantive in magnitude are not statistically significant due to small subgroup sample sizes.

The variables included as predictors and covariates for each analysis are supported by previous research and reflect many of the factors included in the indicator chapters of this report. To identify early indicators that may assist policymakers and practitioners in developing intervention strategies, the analyses used base year covariates to the greatest extent possible. As noted in the chapter introductions, many studies have documented the associations between student background variables (e.g., poverty, family income, and parents' education) and educational outcomes (e.g., postsecondary enrollment, persistence, and attainment rates) as well as between student behavior (e.g., grade retention, student employment, and participation in sports and extracurricular activities) and educational outcomes. Some studies have shown that higher rates of postsecondary persistence and degree attainment are associated with such student characteristics as strong academic achievement in high school, immediate entry into postsecondary education after high school, full-time and continuous enrollment, academic and social engagement with faculty and peers, working part time for less than 15 hours a week while enrolled, and beginning at a 4-year institution instead of a 2-year community college (see Pascarella and Terenzini [2005] for a comprehensive review of the research).

## Methodology

In order to further explore factors that are associated with immediate postsecondary enrollment after high school and attainment of an associate's or bachelor's degree within 6 years of beginning postsecondary education, two logistic regression analyses were conducted. The first logistic regression model, immediate postsecondary enrollment, used data from the Education Longitudinal Study of 2002 (ELS:2002), including data from the base-year data collection in 2002, the first follow-up round in 2004, and the second follow-up round in 2006. Independent variables for this model are based on data from students' sophomore or freshman year in high school (e.g., 9th-grade GPA). The dependent variable—immediate postsecondary enrollment—is based on data collected during the second follow-up in 2006. The second model, attainment of an associate's or bachelor's degree within 6 years of beginning postsecondary education, used data from the Beginning Postsecondary Students Longitudinal Study (BPS:04/09), including data from the base-year data collection in 2004, the first follow-up round in 2006, and the second

follow-up round in 2009. Independent variables for this model are based on data from students' first year of postsecondary enrollment or high school (e.g., high school mathematics coursetaking). The dependent variable—degree attainment by June 2009—is based on data collected during the second follow-up in 2009. For each regression model, all independent variables were entered simultaneously so that relationships between individual independent variables and the dependent variable could be described after controlling for the effect of all of the other independent variables in the model. Detailed information about the logistic regression models, including the accuracy of the models, is provided in the technical appendix of this report.

### Interpreting Logistic Model Results

For the most part, results from the logistic regression analyses are presented in the form of odds ratios that compare the odds<sup>7</sup> of an event occurring in one group to the odds of it occurring in another group, after controlling for the effect of all of the other independent variables in the model. Odds ratios are calculated for each of the categorical independent variables used in the regression models and represent the likelihood of students in one category of an independent variable (referred to as the identity group) completing an event relative to a reference group. If the event is equally likely to occur for both groups, then the odds ratio value equals one. If a category has an odds ratio that is less than one, then students in the identity group have lower odds of immediate postsecondary enrollment than students in the reference group. For example, the odds ratio of 0.65 for males (table ELS-2) is the ratio of the odds of males immediately enrolling in postsecondary education after high school to the odds of females immediately enrolling, after accounting for the effect of all of the other independent variables in the model. The odds ratio of 0.65 indicates that the odds of a male immediately enrolling in postsecondary education after high school graduation are 35 percent lower ((odds ratio – 1) × 100) than the odds for a female (i.e., males are less likely than females to immediately enroll in postsecondary education). In this example, females are the reference category for the independent variable. If a group category has an odds ratio greater than one, then students in the identity category are more likely to exhibit a certain outcome than students in the reference category. For example, the odds ratio of 1.63 for students who first enrolled in a 4-year postsecondary institution (table BPS-2) indicates that a student who first enrolled in a 4-year institution has 63 percent higher odds of attaining a degree within 6 years than a student who first enrolled in a less-than-4-year institution. For continuous independent variables such as standardized test scores or number of postsecondary institution transfers, results are also interpreted in the form of odds ratios based on one unit of change in the independent variable. For example, in table ELS-2, the odds ratio of 1.88 for 9th-grade GPA indicates that a

<sup>7</sup> Odds represent a ratio between  $p$ , the probability that an event will occur, and  $1-p$ , the probability that the event will not occur (computed  $p/(1-p)$ ).

one-point increase in a student's 9th-grade GPA value (e.g., from a 2.0 to a 3.0) is associated with an 88 percent increase in the odds of the student immediately enrolling in postsecondary education. Asterisks (\*) are used in tables to denote findings that are statistically significant at the .05 level. Detailed information about interpretation of the logistic regression coefficients is provided in the technical appendix of this report.

### Immediate Postsecondary Enrollment

Tables ELS-1a and ELS-1b compare the distributions of on-time<sup>8</sup> high school graduates in 2004 who did and did not immediately enroll in postsecondary education after high school. Immediate enrollees had higher levels of socioeconomic status compared with students with no immediate postsecondary enrollment (0.20 standard deviations above the mean vs. 0.27 standard deviations below the mean), a higher mean 9th-grade grade point average (GPA) (3.02 vs. 2.38), and a higher mean 10th-grade mathematics achievement test score (53.7 vs. 46.5). In addition, higher percentages of immediate enrollees (than those who did not immediately enroll) were from two-parent/guardian households (80 percent vs. 72 percent), participated in sports (61 percent vs. 44 percent), participated in two or more extracurricular activities (31 percent vs. 16 percent), and often discussed coursework with their parents (35 percent vs. 22 percent). Lower percentages of immediate enrollees (than those who did not immediately enroll) were ever retained in 10th grade or earlier (19 percent vs. 36 percent), were absent from school seven or more times in the first semester (11 percent vs. 19 percent), had cut or skipped classes seven or more times (3 percent vs. 7 percent), were employed and working more than 30 hours a week (6 percent vs. 9 percent), or had at least one close friend who dropped out of school (14 percent vs. 29 percent).

Associations between student characteristics and immediate postsecondary enrollment were examined for 2004 on-time high school graduates overall, as well as separately for males and females; separately for Whites, Blacks, and Hispanics (table ELS-2); and separately for males and females within each of these racial/ethnic groups (table ELS-3). Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes. Also, for the Black male and female and Hispanic male and female subgroup models, some of the results that appear to be substantive in magnitude are not statistically significant due to small subgroup sample sizes.

Results from the first logistic model indicate that the odds of a male immediately enrolling in postsecondary education were 35 percent lower than the odds for a female, after accounting for all other student and family characteristics that were included as independent variables in the model (table ELS-2). In terms of race/ethnicity, the odds of an Asian student immediately enrolling in postsecondary education after high school were 2.57

<sup>8</sup> Students who graduated from high school by August 2004 or earlier.

times the odds for a White student. While the unadjusted bivariate results indicate that lower percentages of Black than White high school graduates immediately enrolled in postsecondary education, the logistic regression models indicate that Black students had 50 percent higher odds than White students of immediately enrolling in postsecondary education, after accounting for other student, family, and school factors. On-time high school graduates more likely to immediately enroll in a postsecondary institution also included those with higher socioeconomic status, higher 10th-grade mathematics achievement, and a higher 9th-grade GPA. Additional results from the first logistic model are as follows:

- **Had been retained:** The odds of immediately enrolling in postsecondary education for students who had been held back in 10th grade or earlier were 30 percent lower than the odds for those who had never been retained.
- **High school sports:** The odds of immediately enrolling in postsecondary education for students who participated in high school sports were 57 percent higher than the odds for those who did not participate in sports.
- **High school extracurricular activities:** Students who participated in one extracurricular activity had 20 percent higher odds of immediate enrollment in postsecondary education than those who participated in no activities. Students who participated in two or more activities had 43 percent higher odds of immediate enrollment than those who participated in no activities.
- **High school absenteeism:** The odds of immediately enrolling in postsecondary education for students who missed 7 or more days of school in the first semester or term of the school year were 29 percent lower than the odds for those who missed 0 to 2 days.
- **Cut or skipped class:** The odds of immediately enrolling in postsecondary education for students who skipped class at least once in the first semester or term of the school year were 18 percent lower than the odds for those who had never skipped class.
- **Parental engagement:** Students who often discussed school courses with their parents had 44 percent higher odds of immediate enrollment in postsecondary education than those who never had these discussions with their parents.
- **High school student employment:** The odds of immediately enrolling in postsecondary education for students who worked more than 20 hours per week were 29 percent lower than the odds for those who were not employed.

- **Close friends who dropped out:** The odds of immediately enrolling in postsecondary education for students who had one or more friends who dropped out of school were 19 percent lower than the odds for those who had no close friends who dropped out.

**Males and Females:** Examining these variables separately for males and females (controlling for race/ethnicity), the following factors were related to a higher likelihood of immediate postsecondary enrollment for each sex: higher socioeconomic status, higher 10th-grade mathematics achievement, and higher 9th-grade GPA (table ELS-2). Other findings include the following:

- **High school sports:** Males who participated in high school sports had 58 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports. Females who participated in high school sports had 56 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports.
- **High school extracurricular activities:** Males participating in two or more activities had 54 percent higher odds of immediate enrollment in postsecondary education than those who participated in no activities. Females participating in two or more activities had 33 percent higher odds of immediate enrollment in postsecondary education than those who participated in no activities.
- **High school absenteeism:** The odds of immediately enrolling in postsecondary education for females who missed 7 or more days of school in the first school term were 32 percent lower than the odds for those who missed 0 to 2 days.
- **Parental engagement:** Males who often discussed school courses with their parents had 40 percent higher odds of immediate enrollment in postsecondary education than those who never had these discussions with their parents. Females who often discussed school courses with their parents had 49 percent higher odds of immediate enrollment in postsecondary education than those who never had these discussions with their parents.
- **High school student employment:** The odds of immediately enrolling in postsecondary education for males who worked more than 20 hours per week were 28 percent lower than the odds for those who were unemployed. The odds of immediately enrolling in postsecondary education for females who worked more than 20 hours per week were 33 percent lower than the odds for those who were unemployed.

**Whites:** Examining these variables separately for Whites, the following factors were related to a higher likelihood of immediate postsecondary enrollment: higher socioeconomic status, higher 10th-grade mathematics achievement, and higher 9th-grade GPA (table ELS-2). Other findings include the following:

- **Sex:** The odds of immediately enrolling in postsecondary education for White males were 36 percent lower than the odds for White females.
- **High school sports:** White students who participated in high school sports had 60 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports.
- **High school extracurricular activities:** White students participating in two or more extracurricular activities had 54 percent higher odds of immediate enrollment in postsecondary education than those who participated in no activities.
- **High school absenteeism:** White students who missed 7 or more days of school in the first school term had 29 percent lower odds of immediate enrollment in postsecondary education than those who missed 0 to 2 days.
- **Cut or skipped class:** White students who skipped class at least once had 23 percent lower odds of immediate enrollment in postsecondary education than those who had never skipped class.
- **Parental engagement:** White students who often discussed school courses with their parents had 38 percent higher odds of immediate enrollment in postsecondary education than those who never had these discussions with their parents.
- **High school student employment:** The odds of immediately enrolling in postsecondary education for White students who worked more than 20 hours per week were 28 percent lower than the odds for those who were unemployed.
- **Close friends who dropped out:** The odds of immediately enrolling in postsecondary education for White students who had one or more friends who dropped out of school were 31 percent lower than the odds of immediately enrolling for those students who had no close friends who dropped out.

**White Males and Females:** Examining these factors separately for White males and White females, the following factors were related to a higher likelihood of immediate postsecondary enrollment for both groups: higher socioeconomic status, higher 10th-grade

mathematics achievement, and a higher 9th-grade GPA (table ELS-3). Other findings include the following:

- **Had been retained:** The odds of immediately enrolling in postsecondary education for White males who had been held back in 10th grade or earlier were 34 percent lower than the odds for those who had never been retained.
- **High school sports:** White males who participated in high school sports had 64 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports. White females who participated in high school sports had 55 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports.
- **High school extracurricular activities:** White females participating in two or more extracurricular activities had 66 percent higher odds of immediate enrollment in postsecondary education than those who participated in no activities.
- **Parental engagement:** White males who often discussed school courses with their parents had 49 percent higher odds of immediate enrollment in postsecondary education than those who never had these discussions with their parents.
- **High school student employment:** The odds of immediately enrolling in postsecondary education for White females who worked more than 20 hours per week were 36 percent lower than the odds for those who were unemployed.
- **Close friends who dropped out:** The odds of immediately enrolling in postsecondary education for White males who had one or more friends who dropped out of school were 31 percent lower than the odds for those students who had no close friends who dropped out. White females who had at least one close friend who dropped out of school also had 31 percent lower odds of immediate enrollment in postsecondary education than those students who had no close friends who dropped out.

**Blacks:** Examining these factors separately for Blacks, the following factors were related to a higher likelihood of immediate postsecondary enrollment: higher socioeconomic status, higher 10th-grade mathematics achievement, and a higher 9th-grade GPA (table ELS-2). Other findings include the following:

- **Had been retained:** Black students who had been held back in 10th grade or earlier had 46 percent lower odds of immediate enrollment in postsecondary education than those who had never been retained.

**Black Males and Females:** Examining these factors separately for Black males and Black females, higher socioeconomic status and higher 10th-grade mathematics achievement were associated with a higher likelihood of immediate postsecondary enrollment for Black males, while a higher 9th-grade GPA was associated with a higher likelihood of immediate postsecondary enrollment for Black females (table ELS-3).

**Hispanics:** Examining these factors separately for Hispanics, the following factors were related to a higher likelihood of immediate postsecondary enrollment: higher 10th-grade mathematics achievement and a higher 9th-grade GPA (table ELS-2). Other findings include the following:

- **Sex:** The odds of immediately enrolling in postsecondary education for Hispanic males were 41 percent lower than the odds for Hispanic females.
- **Had been retained:** The odds of immediately enrolling in postsecondary education for Hispanic students who had been held back in 10th grade or earlier were 45 percent lower than the odds for those who had never been retained.

- **High school sports:** Hispanic students who participated in high school sports had 73 percent higher odds of immediate enrollment in postsecondary education than those who did not participate in sports.

**Hispanic Males and Females:** Examining these factors separately for Hispanic males and Hispanic females, higher 10th-grade mathematics achievement and a higher 9th-grade GPA were associated with a higher likelihood of immediate postsecondary enrollment for both groups (table ELS-3). Additional findings include the following:

- **Had been retained:** The odds of immediately enrolling in postsecondary education for Hispanic females who had been held back in 10th grade or earlier were 59 percent lower than the odds for those who had never been retained.

**Table ELS-1a. Percentage distribution of immediate postsecondary enrollment status of on-time high school graduates, by sex, race, and other selected characteristics: 2006**

Characteristic	Immediate postsecondary enrollment status					
	Total		Immediate enrollment		No immediate enrollment	
<b>Total</b>	<b>100.0</b>	<b>(†)</b>	<b>100.0</b>	<b>(†)</b>	<b>100.0</b>	<b>(†)</b>
Immediate postsecondary enrollment status						
Immediate enrollment	69.7	(0.64)	100.0	(†)	0.0	(†)
No immediate enrollment	30.4	(0.64)	0.0	(†)	100.0	(†)
Sex						
Male	48.2	(0.64)	45.5	(0.77)	54.3	(0.98)
Female	51.8	(0.64)	54.5	(0.77)	45.7	(0.98)
Race/ethnicity						
White	63.0	(0.95)	66.6	(1.04)	54.6	(1.40)
Black	13.2	(0.61)	11.6	(0.60)	16.8	(0.98)
Hispanic	14.2	(0.70)	11.7	(0.73)	20.1	(1.12)
Asian	4.3	(0.27)	5.2	(0.35)	2.2	(0.25)
Native Hawaiian/Pacific Islander	0.2	(0.04)	‡	(†)	‡	(†)
American Indian/Alaska Native	0.9	(0.21)	0.6	(0.14)	1.4!	(0.45)
Two or more races	4.3	(0.24)	4.1	(0.30)	4.8	(0.42)
Family composition						
Two-parent/two-guardian household	77.3	(0.50)	79.7	(0.56)	71.6	(0.89)
Single-parent/single-guardian household	22.7	(0.50)	20.3	(0.56)	28.4	(0.89)
Previously retained						
Never held back	76.3	(0.62)	81.5	(0.64)	64.4	(1.11)
Held back in 10th grade or earlier	23.7	(0.62)	18.5	(0.64)	35.6	(1.11)
Sports participation						
Did not participate in sports	43.7	(0.72)	38.7	(0.81)	55.6	(1.22)
Participated in sports	56.3	(0.72)	61.3	(0.81)	44.4	(1.22)
Extracurricular activities						
No extracurricular activities	46.3	(0.72)	40.9	(0.81)	58.8	(1.12)
One extracurricular activity	27.2	(0.59)	28.1	(0.68)	25.1	(0.95)
Two or more extracurricular activities	26.6	(0.62)	31.0	(0.74)	16.1	(0.74)
Absences from school in first semester						
Absent 0 to 2 times	52.9	(0.70)	55.5	(0.81)	46.6	(1.18)
Absent 3 to 6 times	33.6	(0.63)	33.3	(0.78)	34.1	(1.08)
Absent 7 or more times	13.6	(0.41)	11.1	(0.48)	19.3	(0.96)
Cut or skip school						
Never skipped class	73.0	(0.82)	76.8	(0.80)	64.2	(1.39)
Skipped class 1 to 6 times	22.9	(0.70)	20.3	(0.73)	29.0	(1.13)
Skipped class 7 or more times	4.1	(0.29)	2.9	(0.28)	6.8	(0.68)
Parental engagement						
Never discuss coursework with parents	16.3	(0.62)	13.4	(0.66)	23.8	(1.12)
Sometimes discuss coursework with parents	52.8	(0.65)	52.1	(0.77)	54.5	(1.23)
Often discuss coursework with parents	30.9	(0.71)	34.5	(0.84)	21.6	(1.07)
Hours working per week						
None	43.3	(0.76)	43.8	(0.88)	42.2	(1.36)
1 to 20 hours per week	42.8	(0.76)	44.4	(0.87)	38.9	(1.36)
21 to 30 hours per week	7.1	(0.34)	6.1	(0.38)	9.6	(0.66)
More than 30 hours per week	6.7	(0.33)	5.7	(0.36)	9.3	(0.69)
Close friends dropping out						
No friends dropped out of high school	82.1	(0.64)	86.1	(0.73)	71.4	(1.30)
One or more friends dropped out of high school	17.9	(0.64)	13.9	(0.73)	28.6	(1.30)

† Not applicable.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is 30 percent or greater.

‡ Reporting standards not met (too few cases).

NOTE: Estimates are based on the sample of students who had graduated from high school by August 2004 and who had a valid F2BYWT weight. Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Table ELS-1b. Mean socioeconomic status score, 10th-grade mathematics score, and 9th-grade GPA for on-time high school graduates, overall and by immediate postsecondary enrollment status: 2006**

Characteristic	Immediate postsecondary enrollment status					
	Total		Immediate enrollment		No immediate enrollment	
Standardized socioeconomic status (SES) score	0.06	(0.013)	0.20	(0.015)	-0.27	(0.014)
Standardized 10th-grade mathematics test score	51.49	(0.165)	53.65	(0.176)	46.47	(0.214)
Grade point average (GPA) in 9th grade	2.83	(0.013)	3.02	(0.014)	2.38	(0.018)

NOTE: The SES score is based on five equally weighted, standardized components: father's/guardian's education, mother's/guardian's education, family income, father's/guardian's occupation, and mother's/guardian's occupation. Estimates are based on the sample of students who had graduated from high school by August 2004 and who had a valid F2BYWT weight. Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Table ELS-2. Summary of logistic regression analyses for variables predicting immediate enrollment in a postsecondary institution after completing high school, overall and by race/ethnicity and sex: 2006**

Characteristic	Total (n = 9,552)			Race/ethnicity subgroup models									Sex subgroup models					
				White (n = 5,858)			Black (n = 1,080)			Hispanic (n = 1,189)			Male (n = 4,518)			Female (n = 5,034)		
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio
Intercept	-3.06	(0.276)	†	-3.16	(0.350)	†	-2.89	(0.855)	†	-2.45	(0.673)	†	-3.46	(0.402)	†	-3.08	(0.433)	†
Sex																		
Female	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Male	-0.43	(0.075)	0.65 *	-0.45	(0.101)	0.64 *	-0.30	(0.218)	0.74	-0.52	(0.171)	0.59 *	†	(†)	†	†	(†)	†
Race/ethnicity																		
White	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Black	0.40	(0.174)	1.50 *	†	(†)	†	†	(†)	†	†	(†)	†	0.43	(0.088)	1.54 *	0.37	(0.089)	1.45 *
Hispanic	0.26	(0.106)	1.29	†	(†)	†	†	(†)	†	†	(†)	†	0.17	(#)	1.18	0.35	(#)	1.42
Asian	0.94	(0.134)	2.57 *	†	(†)	†	†	(†)	†	†	(†)	†	0.95	(0.121)	2.58 *	0.94	(0.113)	2.56 *
Other	-0.05	(0.176)	0.96	†	(†)	†	†	(†)	†	†	(†)	†	-0.02	(0.006)	0.98	-0.08	(0.008)	0.92
Socioeconomic status (SES)																		
SES score	0.71	(0.065)	2.03 *	0.96	(0.096)	2.60 *	0.59	(0.171)	1.80 *	0.23	(0.136)	1.26	0.67	(0.088)	1.96 *	0.75	(0.089)	2.11 *
Family composition																		
Two-parent/two-guardian household	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Single-parent/single-guardian household	-0.01	(0.079)	0.99	0.02	(0.116)	1.02	-0.17	(0.204)	0.85	-0.04	(0.218)	0.96	-0.06	(0.121)	0.94	0.04	(0.113)	1.04
Math score																		
Standardized math test score	0.04	(0.005)	1.05 *	0.04	(0.006)	1.04 *	0.06	(0.017)	1.06 *	0.04	(0.011)	1.04 *	0.04	(0.006)	1.04 *	0.05	(0.008)	1.05 *
GPA																		
9th-grade GPA	0.63	(0.051)	1.88 *	0.77	(0.072)	2.15 *	0.58	(0.180)	1.78 *	0.47	(0.128)	1.60 *	0.62	(0.080)	1.87 *	0.63	(0.078)	1.88 *
Previously retained																		
Never held back	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Held back in 10th grade or earlier	-0.35	(0.115)	0.70 *	-0.21	(0.157)	0.81	-0.62	(0.293)	0.54 *	-0.59	(0.267)	0.55 *	-0.40	(0.158)	0.67 *	-0.31	(0.171)	0.73
Sports participation																		
Did not participate in sports	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Participated in sports	0.45	(0.071)	1.57 *	0.47	(0.095)	1.60 *	0.28	(0.198)	1.32	0.55	(0.191)	1.73 *	0.46	(0.097)	1.58 *	0.44	(0.093)	1.56 *
Extracurricular activities																		
No extracurricular activities	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
One extracurricular activity	0.18	(0.087)	1.20 *	0.17	(0.117)	1.18	0.29	(0.238)	1.33	0.32	(0.210)	1.37	0.25	(0.129)	1.28	0.11	(0.108)	1.12
Two or more extracurricular activities	0.36	(0.092)	1.43 *	0.43	(0.120)	1.54 *	0.45	(0.273)	1.56	-0.07	(0.254)	0.94	0.43	(0.145)	1.54 *	0.28	(0.126)	1.33 *

See notes at end of table.



**Table ELS-2. Summary of logistic regression analyses for variables predicting immediate enrollment in a postsecondary institution after completing high school, overall and by race/ethnicity and sex: 2006—Continued**

Characteristic	Total (n = 9,552)			Race/ethnicity subgroup models									Sex subgroup models					
	Coeff	SE	Odds ratio	White (n = 5,858)			Black (n = 1,080)			Hispanic (n = 1,189)			Male (n = 4,518)			Female (n = 5,034)		
				Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio
Absences from school																		
<i>Absent 0 to 2 times</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Absent 3 to 6 times	-0.07	(0.082)	0.93	-0.00	(0.106)	1.00	-0.31	(0.212)	0.74	-0.08	(0.194)	0.92	0.01	(0.112)	1.01	-0.17	(0.110)	0.85
Absent 7 or more times	-0.35	(0.114)	0.71 *	-0.34	(0.138)	0.71 *	-0.31	(0.339)	0.73	-0.28	(0.289)	0.75	-0.31	(0.171)	0.73	-0.39	(0.147)	0.68 *
Cut or skip school																		
<i>Never skipped class</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Skipped class at least once	-0.19	(0.083)	0.82 *	-0.27	(0.122)	0.77 *	-0.18	(0.193)	0.83	0.07	(0.199)	1.08	-0.20	(0.119)	0.82	-0.18	(0.111)	0.83
Parental engagement																		
<i>Never discuss coursework with parents</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Sometimes discuss coursework with parents	0.11	(0.092)	1.11	0.15	(0.121)	1.16	0.07	(0.295)	1.07	0.03	(0.240)	1.03	0.11	(0.120)	1.11	0.11	(0.143)	1.12
Often discuss coursework with parents	0.37	(0.117)	1.44 *	0.32	(0.148)	1.38 *	0.49	(0.335)	1.63	0.40	(0.291)	1.50	0.34	(0.164)	1.40 *	0.40	(0.177)	1.49 *
Hours working per week																		
<i>None</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
1 to 20 hours per week	-0.07	(0.083)	0.93	0.05	(0.103)	1.05	-0.20	(0.224)	0.82	-0.19	(0.196)	0.83	-0.17	(0.115)	0.84	0.04	(0.115)	1.04
More than 20 hours per week	-0.35	(0.120)	0.71 *	-0.33	(0.140)	0.72 *	-0.28	(0.303)	0.75	-0.39	(0.346)	0.67	-0.32	(0.153)	0.72 *	-0.41	(0.160)	0.67 *
Close friends dropping out																		
<i>No friends dropped out of high school</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
One or more friends dropped out of high school	-0.21	(0.096)	0.81 *	-0.37	(0.114)	0.69 *	-0.13	(0.303)	0.88	-0.08	(0.248)	0.92	-0.14	(0.155)	0.87	-0.29	(0.144)	0.75

† Not applicable.

# Rounds to zero.

\* p < .05.

NOTE: Italics refer to reference categories. Estimates are based on the sample of students who had graduated from high school by August 2004 and who had a valid F2BYWT weight. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

**Table ELS-3. Summary of logistic regression analyses for variables predicting immediate enrollment in a postsecondary institution after completing high school, within race/ethnicity by sex subgroups: 2006**

Characteristic	Race/ethnicity by sex subgroup models																	
	White						Black					Hispanic						
	Male (n = 2,787)			Female (n = 3,071)			Male (n = 489)		Female (n = 591)			Male (n = 553)		Female (n = 636)				
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio			
Intercept	-3.30	(0.517)	†	-3.61	(0.550)	†	-2.99	(1.423)	†	-3.29	(1.225)	†	-3.42	(0.965)	†	-1.84	(0.905)	†
Socioeconomic status (SES)																		
SES score	0.86	(0.132)	2.37 *	1.06	(0.125)	2.89 *	0.67	(0.222)	1.95 *	0.52	(0.267)	1.68	0.21	(0.201)	1.23	0.29	(0.220)	1.33
Family composition																		
Two-parent/two-guardian household	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Single-parent/single-guardian household	0.04	(0.154)	1.04	0.00	(0.179)	1.00	-0.24	(0.343)	0.79	-0.09	(0.291)	0.91	-0.24	(0.337)	0.79	0.18	(0.333)	1.19
Math score																		
Standardized math test score	0.03	(0.009)	1.03 *	0.05	(0.009)	1.05 *	0.06	(0.024)	1.07 *	0.05	(0.026)	1.05	0.05	(0.016)	1.05 *	0.04	(0.016)	1.04 *
GPA																		
9th-grade GPA	0.78	(0.106)	2.17 *	0.75	(0.113)	2.11 *	0.47	(0.257)	1.59	0.74	(0.278)	2.09 *	0.50	(0.238)	1.65 *	0.42	(0.191)	1.52 *
Previously retained																		
Never held back	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Held back in 10th grade or earlier	-0.41	(0.204)	0.66 *	0.14	(0.252)	1.16	-0.65	(0.435)	0.52	-0.63	(0.400)	0.53	-0.26	(0.384)	0.77	-0.89	(0.441)	0.41 *
Sports participation																		
Did not participate in sports	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Participated in sports	0.49	(0.122)	1.64 *	0.44	(0.132)	1.55 *	0.37	(0.324)	1.44	0.23	(0.263)	1.25	0.52	(0.279)	1.68	0.57	(0.288)	1.76
Extracurricular activities																		
No extracurricular activities	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
One extracurricular activity	0.18	(0.169)	1.20	0.16	(0.155)	1.18	0.51	(0.410)	1.66	0.13	(0.363)	1.14	0.53	(0.358)	1.71	0.20	(0.272)	1.23
Two or more extracurricular activities	0.36	(0.184)	1.43	0.50	(0.164)	1.66 *	0.67	(0.404)	1.95	0.29	(0.396)	1.33	0.03	(0.435)	1.03	-0.22	(0.351)	0.80
Absences from school																		
Absent 0 to 2 times	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Absent 3 to 6 times	0.06	(0.156)	1.06	-0.08	(0.154)	0.93	-0.29	(0.295)	0.75	-0.36	(0.320)	0.70	0.11	(0.283)	1.11	-0.34	(0.293)	0.71
Absent 7 or more times	-0.33	(0.200)	0.72	-0.33	(0.205)	0.72	-0.15	(0.652)	0.86	-0.45	(0.421)	0.63	-0.15	(0.439)	0.86	-0.47	(0.412)	0.62

See notes at end of table.

**Table ELS-3. Summary of logistic regression analyses for variables predicting immediate enrollment in a postsecondary institution after completing high school, within race/ethnicity by sex subgroups: 2006—Continued**

Characteristic	Race/ethnicity by sex subgroup models																		
	White						Black						Hispanic						
	Male (n = 2,787)			Female (n = 3,071)			Male (n = 489)			Female (n = 591)			Male (n = 553)			Female (n = 636)			
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	
Cut or skip school																			
<i>Never skipped class</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†
Skipped class at least once	-0.26	(0.162)	0.77	-0.27	(0.164)	0.77	-0.42	(0.322)	0.66	0.02	(0.308)	1.02	0.25	(0.330)	1.28	-0.08	(0.276)	0.92	
Parental engagement																			
<i>Never discuss coursework with parents</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†
Sometimes discuss coursework with parents	0.14	(0.159)	1.15	0.16	(0.209)	1.17	-0.39	(0.507)	0.67	0.54	(0.392)	1.72	0.12	(0.347)	1.13	-0.14	(0.327)	0.87	
Often discuss coursework with parents	0.40	(0.189)	1.49 *	0.25	(0.242)	1.28	0.19	(0.594)	1.21	0.81	(0.440)	2.26	0.00	(0.415)	1.00	0.67	(0.464)	1.96	
Hours working per week																			
None	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†
1 to 20 hours per week	-0.08	(0.152)	0.93	0.16	(0.149)	1.18	-0.34	(0.351)	0.71	0.02	(0.318)	1.02	-0.29	(0.291)	0.75	-0.12	(0.293)	0.89	
More than 20 hours per week	-0.30	(0.183)	0.74	-0.44	(0.203)	0.64 *	-0.27	(0.442)	0.76	-0.31	(0.521)	0.73	-0.71	(0.543)	0.49	-0.18	(0.467)	0.83	
Close friends dropping out																			
<i>No friends dropped out of high school</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†
One or more friends dropped out of high school	-0.37	(0.176)	0.69 *	-0.37	(0.152)	0.69 *	0.03	(0.492)	1.03	-0.38	(0.392)	0.68	0.11	(0.338)	1.12	-0.24	(0.370)	0.79	

† Not applicable.

\*  $p < .05$ .

NOTE: Italics refer to reference categories. Estimates are based on the sample of students who had graduated from high school by August 2004 and who had a valid F2BYWT weight. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

## Degree Attainment

Table BPS-1 compares the distributions of recent high school graduates<sup>9</sup> who began postsecondary education in academic year 2003–04 who did and did not complete an associate’s or bachelor’s degree by 2009. Higher percentages of students who did attain a degree by 2009 than those who did not attain a degree had a parent who held a bachelor’s degree or higher (57 percent vs. 35 percent), were from the highest income quartile (31 percent vs. 15 percent), had taken precalculus/calculus in high school (54 percent vs. 28 percent), had earned college-level credits in high school (43 percent vs. 24 percent), had taken the SAT or ACT (94 percent vs. 77 percent), first attended a private nonprofit postsecondary institution (27 percent vs. 12 percent), first attended a 4-year postsecondary institution (76 percent vs. 40 percent), declared a major during their first year of enrollment (70 percent vs. 67 percent), sometimes or often met with a college advisor in 2004 (82 percent vs. 62 percent), sometimes or often participated in school clubs in 2004 (46 percent vs. 22 percent), sometimes or often participated in school sports in 2004 (36 percent vs. 19 percent), and were always enrolled full time through 2009 (71 percent vs. 42 percent). In addition, lower percentages of students who did attain an associate’s or bachelor’s degree by 2009 (compared to those with no degree attainment) took any remedial classes in 2004 (20 percent vs. 27 percent), worked more than 20 hours a week (including work-study) (23 percent vs. 42 percent), experienced two or more stopout periods through 2009 (3 percent vs. 17 percent), and transferred between institutions two or more times through 2009 (5 percent vs. 9 percent).

Associations between student characteristics and degree attainment were examined for 2003–04 beginning postsecondary students who were recent high school graduates overall and separately for males and females; separately for Whites, Blacks, and Hispanics (table BPS-2); and separately for males and females within each of these racial/ethnic groups (table BPS-3). Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes. Also, for the Black male and female and Hispanic male and female subgroup models, some of the results that appear to be substantive in magnitude are not statistically significant due to small subgroup sample sizes.

Results from the second logistic model indicate that the odds of attaining either an associate’s or bachelor’s degree

<sup>9</sup> In the BPS sample, recent high school graduates are students who graduated from high school in 2003 or 2004. BPS data are collected at the end of the first year of postsecondary enrollment. A small number of students in the sample (fewer than 150) reported that they graduated from high school in 2004. Students who were enrolled in high school and at a postsecondary institution concurrently were not eligible to be sampled for the BPS; however, students who completed high school in 2004 and then enrolled in a postsecondary course by June 2004 were eligible to be sampled.

by 2009 for males were 32 percent lower than the odds of degree attainment for females, after accounting for other student, family, high school, and postsecondary institutional characteristics that were included as independent variables in the model (table BPS-2). Compared with White students, Black students had 43 percent lower odds and Hispanic students had 25 percent lower odds of attaining an associate’s or bachelor’s degree, after accounting for other factors. After controlling for sex, race/ethnicity, and other characteristics listed in table BPS-1, findings for academic year 2003–04 beginning postsecondary students who were recent high school graduates include the following:

- **Income quartile in 2003–04:** The odds of completing a degree program for students who were in the highest income quartile were 2.08 times the odds for those in the lowest income quartile.
- **Parents’ educational attainment:** Students whose parents had completed a bachelor’s or higher degree had about 38 percent higher odds of completing a degree program than students whose parents’ educational attainment was high school completion or less education.
- **Highest high school math completed:** The odds of completing a degree program for students who reported taking algebra II/trigonometry were 40 percent higher and the odds for those who reported taking precalculus/calculus were 93 percent higher than the odds for those who had not taken any of those courses.
- **Earned college-level credits in high school:** Students who earned college credits in high school had 39 percent higher odds of completing a degree program than those who had not received any college credits.
- **SAT or ACT test taking:** Students who took the SAT or ACT exams had 52 percent higher odds of completing a degree program than those who had not taken either exam.
- **First institution control:** Students who started their postsecondary education at private for-profit institutions had 59 percent lower odds of completing a degree program than those who started in public institutions.
- **Attending a 4-year institution at entry:** Students who began their postsecondary education at a 4-year institution had 63 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.

- **Advisor interaction:** Students who met with their college advisor in their first year at their institutions had 30 percent higher odds of completing a degree program than those who did not.
- **School clubs:** Students participating in clubs in their first year at their institutions had 39 percent higher odds of completing a degree program than those who did not.
- **Work hours:** The odds of completing a degree program for students who worked more than 20 hours a week, including work study programs, were 19 percent lower than the odds of completing a degree program for those who did not work.
- **Full-time enrollment:** The odds of completing a degree program for students who were always enrolled full time in their postsecondary program were over twice the odds for those who attended part time for some or all semesters.
- **Stopouts:** Each stopout during a student's postsecondary education was associated with a 60 percent decrease in the odds of the student completing a degree program.

**Males and Females:** Examining these factors separately for males and females (controlling for race/ethnicity and other variables), higher income quartiles were related to a higher likelihood of degree attainment among both groups (table BPS-2). Other findings include the following:

- **Parents' educational attainment:** Females whose parents had completed a bachelor's or higher degree had 57 percent higher odds of completing a degree program than those whose parents' educational attainment was high school completion or less education.
  - **Highest high school math completed:** Males whose highest math course in high school was algebra II/trigonometry had 67 percent higher odds of completing a degree program than males whose highest math course was less than algebra II/trigonometry. The odds of completing a degree program for males whose highest math course in high school was precalculus/calculus were over twice the odds of males whose highest math course was less than those courses. Females who reported that their highest math course in high school was precalculus/calculus had 75 percent higher odds of completing a degree program than females whose highest math course was less than those courses.
- **Earned college-level credits in high school:** Males who earned college credits in high school had 36 percent higher odds of completing a degree program than those who had not received any college credits. Females who earned college credits in high school had 42 percent higher odds of completing a degree program than those who had not received any college credits.
  - **SAT or ACT test taking:** Males who took the SAT or ACT exams had 57 percent higher odds of completing a degree program than those who had not taken either exam.
  - **First institution control:** Females who started their postsecondary education at private for-profit institutions had 74 percent lower odds of completing a degree program than those who started in public institutions.
  - **Attending a 4-year institution at entry:** Males who began their postsecondary education at a 4-year institution had 72 percent higher odds of completing a degree program than those who started at a less-than-4-year institution. Females who began their postsecondary education at a 4-year institution had 49 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.
  - **Declaring a major at college entry:** Males who declared a major at college entry had 25 percent higher odds of completing a degree program than those who did not declare a major.
  - **Advisor interaction:** Females who met with their college advisor in their first year at their institutions had 62 percent higher odds of completing a degree program than those who did not.
  - **School clubs:** Males participating in clubs in their first year at their institutions had 40 percent higher odds of completing a degree program than those who did not. Females participating in clubs in their first year at their institutions had 35 percent higher odds of completing a degree program than those who did not.
  - **Work hours:** The odds of completing a degree program for males who worked more than 20 hours a week, including work study programs, were 30 percent lower than the odds of completing a degree program for those who did not work.

- **Full-time enrollment:** The odds of completing a degree program for males who were always enrolled full time in their postsecondary program were 2.3 times the odds for males who attended part time for some or all semesters. Females who were always enrolled full time in their postsecondary program had 92 percent higher odds of completing a degree program than those who attended part time for some or all semesters.
- **Stopouts:** Each stopout in a male student's postsecondary education was associated with a 57 percent decrease in the odds of the student completing a degree program. Each stopout in a female student's postsecondary education was associated with a 62 percent decrease in the odds of the student completing a degree program.

**Whites:** Examining these factors separately for Whites, having a higher income quartile was related to a higher likelihood of degree attainment (table BPS-2). Other findings include the following:

- **Sex:** White males had 28 percent lower odds of completing a degree program than White females.
- **Parents' educational attainment:** White students whose parents had completed a bachelor's or higher degree had 46 percent higher odds of completing a degree program than students whose parents' educational attainment was high school completion or less education.
- **Highest high school math completed:** White students whose highest high school math was algebra II/trigonometry had 34 percent higher odds of completing a degree program than those whose highest high school math course was less than algebra II/trigonometry. White students whose highest high school math was precalculus/calculus had 92 percent higher odds of completing a degree program than those whose highest high school math was less than precalculus or calculus.
- **Earned college-level credits in high school:** White students who earned college credits in high school had 43 percent higher odds of completing a degree program than those who had not received any college credits.
- **SAT or ACT test taking:** White students who took the SAT or ACT exams had 54 percent higher odds of completing a degree program than those who had not taken either exam.
- **First institution control:** White students who started their postsecondary education at private for-profit institutions had 59 percent lower odds

of completing a degree program than those who started in public institutions.

- **Attending a 4-year institution at entry:** White students who began their postsecondary education at a 4-year institution had 63 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.
- **Advisor interaction:** White students who met with their college advisor in their first year at their institutions had 34 percent higher odds of completing a degree program than those who did not.
- **School clubs:** White students participating in clubs in their first year at their institutions had 34 percent higher odds of completing a degree program than those who did not.
- **Work hours:** White students who worked more than 20 hours a week, including work study programs, had 22 percent lower odds of completing a degree program than those who did not work.
- **Full-time enrollment:** The odds of completing a degree program for White students who were always enrolled full time in their postsecondary program were more than twice the odds for those who attended part time for some or all semesters.
- **Stopouts:** Each stopout in a White student's postsecondary education was associated with a 59 percent decrease in the odds of the student completing a degree program.

**White Males and Females:** Examining these factors separately for White males and White females, higher income quartiles were related to a higher likelihood of degree attainment for both groups (table BPS-3). Other findings include the following:

- **Parents' educational attainment:** White females whose parents had completed a bachelor's or higher degree had 63 percent higher odds of completing a degree program than those whose parents' educational attainment was high school completion or less education.
- **Highest high school math completed:** White males whose highest math course in high school was algebra II/trigonometry had 65 percent higher odds of completing a degree program than White males whose highest math course was less than algebra II/trigonometry. The odds of completing a degree program for White males whose highest math in high school was precalculus/calculus were over twice the odds for White males whose highest math course was

less than algebra II/trigonometry. White females whose highest math course was precalculus/calculus had 82 percent higher odds of completing a degree program than those whose highest math course was less than algebra II/trigonometry.

- **Earned college-level credits in high school:** White males who earned college credits in high school had 62 percent higher odds of completing a degree program than those who had not received any college credits. White females who earned college credits in high school had 28 percent higher odds of completing a degree program than those who had not received any college credits.
- **First institution control:** White females who started their postsecondary education at private for-profit institutions had 74 percent lower odds of completing a degree program than those who started in public institutions.
- **Attending a 4-year institution at entry:** White males who began their postsecondary education at a 4-year institution had 63 percent higher odds of completing a degree program than those who started at a less-than-4-year institution. White females who began their postsecondary education at a 4-year institution had 60 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.
- **Advisor interaction:** White females who met with their college advisor in their first year at their institutions had 67 percent higher odds of completing a degree program than those who did not.
- **Full-time enrollment:** The odds of completing a degree program for White males who were always enrolled full time in their postsecondary program were 2.6 times the odds for those who attended part time for some or all semesters. White females who were always enrolled full time in their postsecondary program had 92 percent higher odds of completing a degree program than those who attended part time for some or all semesters.
- **Stopouts:** Each stopout in a White male student's postsecondary education was associated with a 54 percent decrease in the odds of the student completing a degree program. Each stopout in a White female student's postsecondary education was associated with a 63 percent decrease in the odds of the student completing a degree program.

**Blacks:** Findings resulting from the examination of these factors separately for Blacks include the following (table BPS-2):

- **Sex:** Black males had 35 percent lower odds of completing a degree program than Black females.
- **Parents' educational attainment:** Black students whose parents had completed a bachelor's or higher degree had 60 percent higher odds of completing a degree program than students whose parents' educational attainment was high school completion or less education.
- **Attending a 4-year institution at entry:** Black students who began their postsecondary education at a 4-year institution had 90 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.
- **Declaring a major at college entry:** Black students who declared a major at college entry had 70 percent higher odds of completing a degree program than those who did not declare a major.
- **School clubs:** Black students participating in clubs in their first year at their institutions had 67 percent higher odds of completing a degree program than those who did not.
- **Stopouts:** Each stopout in a Black student's postsecondary education was associated with a 63 percent decrease in the odds of the student completing a degree program.

**Black Males and Females:** Findings resulting from the examination of these factors separately for Black males and Black females include the following (table BPS-3):

- **Income quartile in 2003–04:** The odds of completing a degree program for Black males who were in the highest income quartile were almost 4 times the odds for those in the lowest income quartile.
- **Full-time enrollment:** The odds of completing a degree program for Black males who were always enrolled full time in their postsecondary program were 2.3 times the odds for those who attended part time for some or all semesters.
- **Parents' educational attainment:** The odds of completing a degree program for Black females whose parents had completed a bachelor's or higher degree were 2.2 times the odds for those whose parents' educational attainment was high school completion or less education.

- **School clubs:** Black females participating in clubs in their first year at their institutions had 65 percent higher odds of completing a degree program than those who did not.
- **Stopouts:** Each stopout in a Black female student's postsecondary education was associated with a 68 percent decrease in the odds of the student completing a degree program.

**Hispanics:** Examining these factors separately for Hispanics, the highest income quartile was related to a higher likelihood of degree attainment (table BPS-2). Other findings include the following:

- **First institution control:** Hispanic students who started their postsecondary education at private for-profit institutions had 62 percent lower odds of completing a degree program than those who started in public institutions.
- **Attending a 4-year institution at entry:** Hispanic students who began their postsecondary education at a 4-year institution had 77 percent higher odds of completing a degree program than those who started at a less-than-4-year institution.
- **Full-time enrollment:** Hispanic students who were always enrolled full time in their postsecondary program had 93 percent higher odds of completing a degree program than those who attended part time for some or all semesters.
- **Stopouts:** Each stopout in a Hispanic student's postsecondary education was associated with a 55 percent decrease in the odds of the student completing a degree program.

**Hispanic Males and Females:** Findings resulting from the examination of these factors separately for Hispanic males and Hispanic females include the following (table BPS-3):

- **Attending a 4-year institution at entry:** The odds of completing a degree program for Hispanic males who began their postsecondary education at a 4-year institution were 2.6 times the odds for those who started at a less-than-4-year institution.
- **First institution control:** Hispanic females who started their postsecondary education at private for-profit institutions had 73 percent lower odds of completing a degree program than those who started in public institutions.
- **Full-time enrollment:** The odds of completing a degree program for Hispanic females who were always enrolled full time in their postsecondary program were 2.6 times the odds for those who attended part time for some or all semesters.
- **Stopouts:** Each stopout in a Hispanic male student's postsecondary education was associated with a 59 percent decrease in the odds of the student completing a degree program. Each stopout in a Hispanic female student's postsecondary education was associated with a 53 percent decrease in the odds of the student completing a degree program.



## Conclusion

This chapter used logistic regression analyses to explore relationships among student, family, and school/institutional characteristics and two outcomes for recent high school graduates: the likelihood of immediate postsecondary enrollment and the likelihood of attaining an associate's or bachelor's degree within 6 years of beginning postsecondary education, with a focus on Black and Hispanic males. For males overall, the likelihood of immediate postsecondary enrollment was higher for males with higher socioeconomic status, a higher 9th-grade GPA, and higher 10th-grade mathematics achievement scores, as well as higher for those who participated in multiple high school sports and extracurricular activities and those who often discussed school courses with their parents (table ELS-2). In contrast, the likelihood of immediate postsecondary enrollment was lower for males who worked more than 20 hours per week while enrolled in high school. In subgroup analyses of White, Black, and Hispanic males, higher 10th-grade mathematics achievement scores were associated with a greater likelihood of immediate postsecondary enrollment for all three groups, higher socioeconomic status was associated with a greater likelihood of immediate enrollment for White and Black males, and a higher 9th-grade GPA was associated with a greater likelihood of immediate enrollment for White and Hispanic males (table ELS-3).

Factors associated with a higher likelihood of immediate postsecondary enrollment for females overall included higher socioeconomic status, a higher 9th-grade GPA, and higher 10th-grade mathematics achievement scores, as well as higher for those who participated in multiple high school sports and extracurricular activities and those who often discussed school courses with their parents (table ELS-2). In contrast, the likelihood of immediate postsecondary enrollment was lower for females who missed 7 or more days of school during the first term of the year and for those who worked more than 20 hours per week while enrolled in high school. In subgroup analyses of White, Black, and Hispanic females, higher 9th-grade GPA was associated with a greater likelihood of immediate postsecondary enrollment for all three groups, higher 10th-grade mathematics achievement scores were associated with a greater likelihood of immediate enrollment for White and Hispanic females, and higher socioeconomic status was associated with a greater likelihood of immediate enrollment for White females (table ELS-3).

Factors associated with a higher likelihood of associate's or bachelor's degree attainment by June 2009 for males overall included higher socioeconomic status, completion of algebra II/trigonometry or precalculus/calculus courses in high school, earning college-level credits in high school, taking the SAT or ACT exam, beginning in a 4-year postsecondary institution, declaring a major in the first

year, participating in school clubs in the first year at their institutions, and always being enrolled full time (table BPS-2). In contrast, the likelihood for degree attainment within 6 years was lower for males who worked 20 or more hours per week and those who stopped out of their postsecondary programs at least one time. Many of the relationships between these factors and degree attainment for males overall were also observed for White males (table BPS-3). In subgroup analysis of Black males, those from the highest income quartile and those who were always enrolled full time at their institutions were more likely than other Black males to attain a degree within 6 years of entry. For Hispanic males, those who first attended a 4-year postsecondary institution were more likely to have attained a degree within 6 years than those who started in less-than-4-year institutions.

Factors associated with a higher likelihood of associate's or bachelor's degree attainment by June 2009 for females overall included higher socioeconomic status, having a parent who completed a bachelor's or higher degree, completion of precalculus/calculus courses in high school, earning college-level credits in high school, beginning in a 4-year postsecondary institution, meeting with their college advisor in their first year, participating in school clubs in the first year at their institutions, and always being enrolled full time (table BPS-2). In contrast, the likelihood for degree attainment within 6 years was lower for females who started their postsecondary education at private for-profit institutions and those who stopped out of their postsecondary programs at least one time. Many of the relationships between these factors and degree attainment for females overall were also observed for White females (table BPS-3). In subgroup analysis of Black females, those who had a parent who completed a bachelor's degree or higher and those who participated in clubs in their first year were more likely than other Black females to attain a degree within 6 years of entry. For Hispanic females, those who were always enrolled full time in their postsecondary programs were more likely to have attained a degree within 6 years than Hispanic females who did not always attend full time. The likelihood for degree attainment within 6 years was lower for Hispanic females who started their postsecondary education at private for-profit institutions and those who stopped out of their postsecondary programs at least one time.

In addition, some student, family, and school/institutional factors were related to a higher likelihood of both outcomes—immediate postsecondary enrollment and degree attainment within 6 years of beginning postsecondary education—for students overall (tables ELS-2 and BPS-2). These factors included being female, having a higher socioeconomic status, participation in extracurricular activities or school clubs, and not working more than 20 hours per week.

**Table BPS-1. Percentage distribution of 2003–04 beginning postsecondary students who were recent high school graduates, by June 2009 degree attainment status and other selected characteristics**

Characteristic	Total	Associate's or bachelor's degree attainment status in June 2009				
		Total	Degree		No degree	
Total	100.0	(†)	100.0	(†)	100.0	(†)
Associate's or bachelor's degree attainment status in June 2009						
Degree	53.2	(0.81)	100.0	(†)	0.0	(†)
No degree	46.8	(0.81)	0.0	(†)	100.0	(†)
Sex						
Male	44.6	(0.79)	41.5	(0.96)	48.2	(1.14)
Female	55.4	(0.79)	58.5	(0.96)	51.8	(1.14)
Race/ethnicity						
White	65.8	(1.09)	73.4	(1.00)	57.2	(1.56)
Black	10.6	(0.83)	7.0	(0.68)	14.8	(1.17)
Hispanic	13.3	(0.66)	9.1	(0.56)	18.1	(1.12)
Asian	5.1	(0.34)	5.9	(0.37)	4.2	(0.56)
Other	5.1	(0.32)	4.5	(0.35)	5.7	(0.50)
Parent's highest level of education						
High school diploma or less and vocational-technical training	30.3	(0.66)	22.5	(0.83)	39.2	(1.13)
Some college, less than bachelor's degree	22.7	(0.68)	20.1	(0.77)	25.6	(1.08)
Bachelor's or higher degree	47.0	(0.75)	57.4	(0.91)	35.2	(0.94)
Income quartile in 2004						
Low	26.4	(0.58)	18.3	(0.58)	35.7	(1.02)
Low middle	25.6	(0.67)	24.2	(0.73)	27.2	(1.13)
High middle	24.7	(0.59)	26.9	(0.70)	22.1	(0.98)
High	23.3	(0.58)	30.6	(0.79)	15.0	(0.73)
Highest level of high school mathematics						
None of these courses	12.4	(0.46)	6.3	(0.47)	19.3	(0.87)
Algebra II/trigonometry	45.7	(0.78)	39.2	(0.91)	53.0	(1.22)
Precalculus/calculus	41.9	(0.74)	54.4	(0.93)	27.7	(1.00)
Earned any college-level credits in high school						
No	65.6	(0.90)	56.8	(1.04)	75.6	(1.10)
Yes	34.4	(0.90)	43.2	(1.04)	24.4	(1.10)
Took the SAT or ACT exams						
No	13.7	(0.69)	5.6	(0.52)	22.9	(1.19)
Yes	86.3	(0.69)	94.4	(0.52)	77.1	(1.19)
First institution control 2003–04						
Public	72.4	(0.59)	70.0	(0.73)	75.2	(1.05)
Private nonprofit	19.9	(0.39)	27.2	(0.61)	11.7	(0.62)
Private for-profit	7.6	(0.53)	2.8	(0.45)	13.1	(0.93)
First institution level 2003–04						
Less-than-4-year	41.0	(0.81)	24.1	(1.04)	60.1	(1.26)
4-year	59.0	(0.81)	75.9	(1.04)	39.9	(1.26)
Declared a major during first year						
No	31.3	(0.85)	29.7	(0.91)	33.2	(1.32)
Yes	68.7	(0.85)	70.3	(0.91)	66.8	(1.32)
Took any remedial classes in 2004						
No	76.7	(0.66)	80.0	(0.72)	73.0	(1.02)
Yes	23.3	(0.66)	20.0	(0.72)	27.0	(1.02)

See notes at end of table.

**Table BPS-1. Percentage distribution of 2003–04 beginning postsecondary students who were recent high school graduates, by June 2009 degree attainment status and other selected characteristics—Continued**

Characteristic	Total	Associate's or bachelor's degree attainment status in June 2009				
		Degree	No degree			
<b>Total</b>	<b>100.0</b>	<b>(†)</b>	<b>100.0</b>	<b>(†)</b>	<b>100.0</b>	<b>(†)</b>
Met with college advisor in 2004						
Never <sup>1</sup>	27.3	(0.70)	18.2	(0.67)	37.6	(1.13)
Sometimes or often	72.7	(0.70)	81.8	(0.67)	62.4	(1.13)
Participated in school clubs in 2004						
Never <sup>1</sup>	65.5	(0.65)	54.1	(0.81)	78.4	(0.88)
Sometimes or often	34.5	(0.65)	45.9	(0.81)	21.6	(0.88)
Participated in school sports in 2004						
Never <sup>1</sup>	72.0	(0.72)	64.2	(0.92)	80.9	(0.99)
Sometimes or often	28.0	(0.72)	35.8	(0.92)	19.1	(0.99)
Hours worked, including work-study						
Not working	33.5	(0.68)	37.8	(0.84)	28.7	(0.97)
Up to 20 hours a week	34.9	(0.64)	39.6	(0.83)	29.5	(0.89)
More than 20 hours a week	31.6	(0.79)	22.6	(0.88)	41.8	(1.17)
Attendance intensity pattern through 2009						
Always full-time	57.2	(0.75)	70.6	(0.78)	42.0	(1.23)
Part-time for some/all semesters	42.8	(0.75)	29.4	(0.78)	58.0	(1.23)
Number of stopouts <sup>2</sup> through 2009						
Zero	63.0	(0.78)	79.5	(0.72)	44.3	(1.12)
One	27.3	(0.74)	17.7	(0.70)	38.3	(1.17)
Two or more	9.6	(0.52)	2.8	(0.25)	17.3	(1.01)
Number of transfers through 2009						
Zero	64.8	(0.82)	71.0	(0.88)	57.8	(1.23)
One	28.2	(0.76)	23.8	(0.79)	33.1	(1.16)
Two or more	7.0	(0.34)	5.2	(0.43)	9.1	(0.63)

† Not applicable.

<sup>1</sup> Students who started their postsecondary education at less-than-2-year institutions skipped this item on the questionnaire. In such instances, student values were collapsed with the "Never" category for analysis purposes.

<sup>2</sup> A "stopout" is defined as a temporary withdrawal of 5 or more consecutive months from enrollment at a postsecondary institution.

NOTE: Estimates are based on the sample of students who graduated from high school in 2003 or 2004 and who had a valid WTB000 weight. A small number of students in the sample (fewer than 150) reported that they graduated from high school in 2004. Students who were enrolled in high school and at a postsecondary institution concurrently were not eligible to be sampled for the BPS; however, students who completed high school in 2004 and then enrolled in a postsecondary course by June 2004 were eligible to be sampled. Standard errors appear in parentheses. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09).

**Table BPS-2. Summary of logistic regression analyses for variables predicting that recent high school graduates who entered a postsecondary institution in academic year 2003–04 would have completed an associate’s or bachelor’s degree as of spring 2009, overall and by race/ethnicity and sex: 2004–09**

Characteristic	Total (n = 11,410)			Race/ethnicity subgroup models									Sex subgroup models					
				White (n = 7,806)			Black (n = 1,205)			Hispanic (n = 1,270)			Male (n = 4,866)			Female (n = 6,544)		
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio
Intercept	-1.59	(0.200)	†	-1.70	(0.240)	†	-1.97	(0.570)	†	-1.89	(0.510)	†	-1.89	(0.270)	†	-1.65	(0.270)	†
Sex																		
Female	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Male	-0.38	(0.070)	0.68 *	-0.33	(0.080)	0.72 *	-0.43	(0.210)	0.65 *	-0.41	(0.220)	0.66	†	(†)	†	†	(†)	†
Race/ethnicity																		
White	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Black	-0.56	(0.110)	0.57 *	†	(†)	†	†	(†)	†	†	(†)	†	-0.68	(0.170)	0.51 *	-0.42	(0.130)	0.66 *
Hispanic	-0.29	(0.130)	0.75 *	†	(†)	†	†	(†)	†	†	(†)	†	-0.45	(0.220)	0.64 *	-0.14	(0.140)	0.87
Asian	0.17	(0.160)	1.19	†	(†)	†	†	(†)	†	†	(†)	†	-0.11	(0.220)	0.90	0.61	(0.240)	1.84 *
Other	-0.34	(0.140)	0.71 *	†	(†)	†	†	(†)	†	†	(†)	†	-0.13	(0.210)	0.88	-0.49	(0.190)	0.61 *
Parent’s highest level of education																		
High school diploma or less and vocational-technical training	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Some college, less than bachelor’s degree	0.13	(0.100)	1.14	0.24	(0.140)	1.27	0.08	(0.230)	1.08	-0.09	(0.300)	0.91	0.02	(0.170)	1.02	0.21	(0.120)	1.23
Bachelor’s or higher degree	0.32	(0.090)	1.38 *	0.38	(0.120)	1.46 *	0.47	(0.240)	1.60 *	-0.04	(0.270)	0.96	0.18	(0.140)	1.20	0.45	(0.120)	1.57 *
Income quartile in 2004																		
Low	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Low middle	0.38	(0.100)	1.46 *	0.38	(0.140)	1.46 *	0.19	(0.270)	1.21	0.49	(0.280)	1.63	0.35	(0.150)	1.42 *	0.40	(0.140)	1.49 *
High middle	0.52	(0.100)	1.68 *	0.57	(0.130)	1.77 *	0.28	(0.340)	1.32	0.41	(0.380)	1.51	0.45	(0.150)	1.57 *	0.59	(0.150)	1.80 *
High	0.73	(0.110)	2.08 *	0.70	(0.120)	2.01 *	0.69	(0.390)	1.99	0.91	(0.390)	2.48 *	0.64	(0.150)	1.90 *	0.83	(0.150)	2.29 *
Highest level of high school mathematics																		
None of these courses	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Algebra II/trigonometry	0.34	(0.120)	1.40 *	0.29	(0.140)	1.34 *	0.21	(0.340)	1.23	0.54	(0.320)	1.72	0.51	(0.190)	1.67 *	0.23	(0.160)	1.26
Precalculus/calculus	0.66	(0.130)	1.93 *	0.65	(0.150)	1.92 *	0.55	(0.400)	1.73	0.67	(0.380)	1.95	0.81	(0.230)	2.25 *	0.56	(0.180)	1.75 *
Earned any college-level credits in high school	0.33	(0.070)	1.39 *	0.36	(0.090)	1.43 *	0.11	(0.250)	1.12	0.41	(0.240)	1.51	0.31	(0.100)	1.36 *	0.35	(0.100)	1.42 *
Took the SAT or ACT exams	0.42	(0.140)	1.52 *	0.43	(0.170)	1.54 *	0.23	(0.420)	1.26	0.43	(0.290)	1.54	0.45	(0.200)	1.57 *	0.40	(0.210)	1.49
First institution control 2003–04																		
Public	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Private nonprofit	0.08	(0.080)	1.08	0.14	(0.100)	1.15	0.13	(0.280)	1.14	-0.38	(0.360)	0.68	0.11	(0.120)	1.12	0.08	(0.120)	1.08
Private for-profit	-0.88	(0.190)	0.41 *	-0.89	(0.250)	0.41 *	-1.13	(0.660)	0.32	-0.96	(0.440)	0.38 *	-0.41	(0.300)	0.66	-1.36	(0.320)	0.26 *

See notes at end of table.

**Table BPS-2. Summary of logistic regression analyses for variables predicting that recent high school graduates who entered a postsecondary institution in academic year 2003–04 would have completed an associate’s or bachelor’s degree as of spring 2009, overall and by race/ethnicity and sex: 2004–09—Continued**

Characteristic	Total (n = 11,410)			Race/ethnicity subgroup models									Sex subgroup models					
	Coeff	SE	Odds ratio	White (n = 7,806)			Black (n = 1,205)			Hispanic (n = 1,270)			Male (n = 4,866)			Female (n = 6,544)		
First institution level 2003–04																		
Less-than-4-year	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
4-year	0.49	(0.100)	1.63 *	0.49	(0.110)	1.63 *	0.64	(0.310)	1.90 *	0.57	(0.250)	1.77 *	0.54	(0.150)	1.72 *	0.40	(0.120)	1.49 *
Declared a major during first year	0.09	(0.070)	1.09	0.07	(0.090)	1.07	0.53	(0.220)	1.70 *	0.09	(0.230)	1.09	0.22	(0.120)	1.25 *	-0.04	(0.100)	0.96
Took any remedial classes in 2004	-0.04	(0.080)	0.96	-0.05	(0.100)	0.95	-0.14	(0.200)	0.87	0.20	(0.260)	1.22	-0.05	(0.120)	0.95	-0.04	(0.100)	0.96
Met with college advisor in 2004	0.26	(0.080)	1.30 *	0.29	(0.100)	1.34 *	0.12	(0.280)	1.13	0.19	(0.260)	1.21	-0.01	(0.130)	0.99	0.48	(0.110)	1.62 *
Participated in school clubs in 2004	0.33	(0.080)	1.39 *	0.29	(0.110)	1.34 *	0.51	(0.240)	1.67 *	0.38	(0.280)	1.46	0.34	(0.120)	1.40 *	0.30	(0.110)	1.35 *
Participated in school sports in 2004	-0.05	(0.080)	0.95	-0.17	(0.090)	0.84	0.04	(0.250)	1.04	0.16	(0.320)	1.17	-0.03	(0.110)	0.97	-0.03	(0.110)	0.97
Hours worked, including work-study																		
<i>Not working</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Up to 20 hours a week	0.08	(0.070)	1.08	0.12	(0.090)	1.13	0.25	(0.270)	1.28	-0.18	(0.260)	0.84	-0.03	(0.100)	0.97	0.17	(0.100)	1.19
More than 20 hours a week	-0.21	(0.090)	0.81 *	-0.25	(0.110)	0.78 *	-0.15	(0.260)	0.86	-0.37	(0.250)	0.69	-0.35	(0.130)	0.70 *	-0.12	(0.110)	0.89
Attendance intensity pattern through 2009																		
<i>Part-time for some/all semesters</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Always full-time	0.73	(0.070)	2.08 *	0.81	(0.080)	2.25 *	0.45	(0.240)	1.57	0.66	(0.260)	1.93 *	0.83	(0.110)	2.29 *	0.65	(0.100)	1.92 *
Number of stopouts <sup>1</sup> through 2009	-0.91	(0.050)	0.40 *	-0.88	(0.070)	0.41 *	-1.00	(0.240)	0.37 *	-0.79	(0.160)	0.45 *	-0.85	(0.090)	0.43 *	-0.96	(0.090)	0.38 *
Number of transfers through 2009	-0.03	(0.060)	0.97	-0.01	(0.080)	0.99	-0.09	(0.170)	0.91	0.17	(0.170)	1.19	-0.08	(0.090)	0.92	0.02	(0.090)	1.02

† Not applicable.

\*  $p < .05$ .

<sup>1</sup>A “stopout” is defined as a temporary withdrawal of 5 or more consecutive months from enrollment at a postsecondary institution.

NOTE: Italics refer to reference categories. Estimates are based on the sample of students who graduated from high school in 2003 or 2004 and who had a valid WTB000 weight. A small number of students in the sample (less than 150) reported that they graduated from high school in 2004. Students who were enrolled in high school and at a postsecondary institution concurrently were not eligible to be sampled for the BPS; however, students who completed high school in 2004 and then enrolled in a postsecondary course by June 2004 were eligible to be sampled. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09).

**Table BPS-3. Summary of logistic regression analyses for variables predicting that recent high school graduates who entered a postsecondary institution in academic year 2003-04 would have completed an associate's or bachelor's degree as of spring 2009, overall and by race/ethnicity and sex: 2004-09**

Characteristic	Race/ethnicity by sex subgroup models																	
	White						Black						Hispanic					
	Male (n = 3,393)			Female (n = 4,413)			Male (n = 465)			Female (n = 740)			Male (n = 510)		Female (n = 760)			
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio			
Intercept	-2.07	(0.330)	†	-1.67	(0.340)	†	-1.60	(1.030)	†	-2.16	(0.860)	†	-2.11	(0.760)	†	-2.22	(0.730)	†
Parent's highest level of education																		
High school diploma or less and vocational-technical training	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Some college, less than bachelor's degree	0.20	(0.240)	1.22	0.28	(0.160)	1.32	-0.32	(0.480)	0.73	0.13	(0.280)	1.14	-0.60	(0.520)	0.55	0.18	(0.390)	1.20
Bachelor's or higher degree	0.30	(0.190)	1.35	0.49	(0.150)	1.63 *	-0.27	(0.470)	0.76	0.79	(0.330)	2.20 *	-0.26	(0.460)	0.77	0.15	(0.370)	1.16
Income quartile in 2004																		
Low	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Low middle	0.36	(0.210)	1.43	0.39	(0.220)	1.48	0.24	(0.480)	1.27	0.33	(0.370)	1.39	0.44	(0.430)	1.55	0.41	(0.370)	1.51
High middle	0.44	(0.200)	1.55 *	0.68	(0.200)	1.97 *	0.75	(0.580)	2.12	0.11	(0.340)	1.12	0.12	(0.570)	1.13	0.56	(0.480)	1.75
High	0.58	(0.190)	1.79 *	0.81	(0.200)	2.25 *	1.37	(0.630)	3.94 *	0.24	(0.480)	1.27	0.61	(0.610)	1.84	1.09	(0.590)	2.97
Highest level of high school mathematics																		
None of these courses	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Algebra II/trigonometry	0.50	(0.230)	1.65 *	0.13	(0.210)	1.14	-0.44	(0.610)	0.64	0.43	(0.360)	1.54	0.82	(0.610)	2.27	0.33	(0.430)	1.39
Precalculus/calculus	0.73	(0.260)	2.08 *	0.60	(0.230)	1.82 *	0.03	(0.630)	1.03	0.63	(0.450)	1.88	1.18	(0.730)	3.25	0.41	(0.520)	1.51
Earned any college-level credits in high school	0.48	(0.130)	1.62 *	0.25	(0.120)	1.28 *	0.26	(0.420)	1.30	0.18	(0.370)	1.20	0.25	(0.370)	1.28	0.62	(0.320)	1.86
Took the SAT or ACT exams	0.42	(0.250)	1.52	0.46	(0.270)	1.58	0.04	(0.760)	1.04	0.44	(0.700)	1.55	0.69	(0.540)	1.99	0.27	(0.460)	1.31
First institution control 2003-04																		
Public	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Private nonprofit	0.25	(0.140)	1.28	0.05	(0.150)	1.05	-0.16	(0.530)	0.85	0.33	(0.360)	1.39	-0.64	(0.560)	0.53	-0.12	(0.480)	0.89
Private for-profit	-0.55	(0.390)	0.58	-1.35	(0.380)	0.26 *	0.28	(0.860)	1.32	†	(†)	†	-0.49	(0.970)	0.61	-1.30	(0.630)	0.27 *
First institution level 2003-04																		
Less-than-4-year	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
4-year	0.49	(0.180)	1.63 *	0.47	(0.150)	1.60 *	1.07	(0.570)	2.92	0.30	(0.330)	1.35	0.95	(0.480)	2.59 *	0.38	(0.350)	1.46
Declared a major during first year	0.19	(0.140)	1.21	-0.06	(0.140)	0.94	0.59	(0.370)	1.80	0.28	(0.330)	1.32	0.50	(0.450)	1.65	-0.08	(0.260)	0.92
Took any remedial classes in 2004	-0.06	(0.150)	0.94	-0.04	(0.130)	0.96	-0.01	(0.380)	0.99	-0.27	(0.300)	0.76	0.40	(0.440)	1.49	0.09	(0.360)	1.09

See notes at end of table.

**Table BPS-3. Summary of logistic regression analyses for variables predicting that recent high school graduates who entered a postsecondary institution in academic year 2003–04 would have completed an associate’s or bachelor’s degree as of spring 2009, overall and by race/ethnicity and sex: 2004–09—Continued**

Characteristic	Race/ethnicity by sex subgroup models																	
	White			Black			Hispanic			Hispanic			Hispanic					
	Male (n = 3,393)			Female (n = 4,413)			Male (n = 465)			Female (n = 740)			Male (n = 510)			Female (n = 760)		
	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio	Coeff	SE	Odds ratio
Met with college advisor in 2004	0.05	(0.160)	1.05	0.51	(0.150)	1.67 *	-0.57	(0.520)	0.57	0.53	(0.420)	1.70	-0.39	(0.470)	0.68	0.61	(0.340)	1.84
Participated in school clubs in 2004	0.27	(0.150)	1.31	0.30	(0.140)	1.35	0.62	(0.410)	1.86	0.50	(0.250)	1.65 *	0.43	(0.470)	1.54	0.43	(0.410)	1.54
Participated in school sports in 2004	-0.15	(0.140)	0.86	-0.13	(0.120)	0.88	0.06	(0.380)	1.06	0.23	(0.450)	1.26	0.11	(0.470)	1.12	0.17	(0.460)	1.19
Hours worked, including work-study																		
<i>Not working</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Up to 20 hours a week	0.05	(0.130)	1.05	0.16	(0.120)	1.17	0.18	(0.470)	1.20	0.30	(0.290)	1.35	-0.60	(0.460)	0.55	0.18	(0.360)	1.20
More than 20 hours a week	-0.30	(0.170)	0.74	-0.24	(0.150)	0.79	-0.69	(0.500)	0.50	-0.01	(0.300)	0.99	-0.82	(0.430)	0.44	#	(†)	†
Attendance intensity pattern through 2009																		
<i>Part-time for some/all semesters</i>	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†	†	(†)	†
Always full-time	0.97	(0.130)	2.64 *	0.65	(0.110)	1.92 *	0.85	(0.420)	2.34 *	0.27	(0.320)	1.31	0.20	(0.390)	1.22	0.94	(0.350)	2.56 *
Number of stopouts <sup>1</sup> through 2009	-0.77	(0.100)	0.46 *	-0.99	(0.110)	0.37 *	-0.68	(0.400)	0.51	-1.14	(0.350)	0.32 *	-0.88	(0.310)	0.41 *	-0.75	(0.220)	0.47 *
Number of transfers through 2009	-0.09	(0.120)	0.91	0.06	(0.110)	1.06	-0.21	(0.310)	0.81	-0.13	(0.220)	0.88	0.23	(0.260)	1.26	0.21	(0.240)	1.23

† Not applicable.

# Rounds to zero.

‡ Reporting standards not met (too few cases).

\*  $p < .05$ .

<sup>1</sup> A "stopout" is defined as a temporary withdrawal of 5 or more consecutive months from enrollment at a postsecondary institution.

NOTE: Italics refer to reference categories. Estimates are based on the sample of students who graduated from high school in 2003 or 2004 and who had a valid WTBO00 weight. A small number of students in the sample (less than 150) reported that they graduated from high school in 2004. Students who were enrolled in high school and at a postsecondary institution concurrently were not eligible to be sampled for the BPS; however, students who completed high school in 2004 and then enrolled in a postsecondary course by June 2004 were eligible to be sampled. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 Beginning Postsecondary Students Longitudinal Study, Second Follow-up (BPS:04/09).



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# Appendix A

## **Technical Appendix—Logistic Regression Analysis and Imputation Procedures**

# Appendix A: TECHNICAL APPENDIX—LOGISTIC REGRESSION ANALYSIS AND IMPUTATION PROCEDURES

In chapter 8 of this report, two logistic regression analyses were conducted to explore factors associated with students' immediate enrollment in postsecondary education after high school and their attainment of an associate's or bachelor's degree within 6 years of beginning postsecondary education. Multivariate analyses, such as logistic multiple regression models, provide information on whether group differences in immediate postsecondary enrollment and degree attainment persist after controlling for student, family, and school/institutional characteristics. The analysis for the first model, immediate postsecondary enrollment, was conducted using data from the Education Longitudinal Study of 2002 (ELS:2002), including variables from the base year (2002), first follow-up (2004), and second follow-up (2006). The analysis for the second model, attainment of an associate's or bachelor's degree within 6 years of beginning postsecondary education, was conducted using data from the Beginning Postsecondary Students Longitudinal Study (BPS:04/09), including data from the base year (2004), first follow-up (2006), and second follow-up (2009). Descriptions of the ELS:2002 and BPS:04/09 surveys are provided in the *Guide to Sources* section of this report.

This technical appendix provides details on the logistic regression models used with the ELS:2002 and BPS:04/09 analysis datasets. In addition, this appendix provides details on the procedures used to impute missing data for key variables used in the ELS:2002 logistic regression model. The BPS:04/09 dataset variables were imputed before release, so no additional imputation procedures were performed. The appendix concludes with a glossary of definitions of the ELS:2002 and BPS:04/09 variables used in the logistic regression models.

## Logistic regression procedures

The analyses conducted in chapter 8 employed the technique of logistic regression for categorical outcomes, which produces coefficients estimating the relationship between independent variables on the probability of the dependent outcome. To aid in the interpretation of results, the effect of a change in a given independent variable,  $X$ , is transformed into an odds ratio and the percentage likelihood of the dependent outcome. The formula for calculating an odds ratio is

$$\exp(\beta)c$$

where  $\exp$  equals base  $e$  (a constant equal to 2.71828182845904, the base of the natural logarithm),  $\beta$  equals the logistic regression coefficient (represented in the equation as an exponent), and  $c$  equals the number of units of change in  $X$  (e.g., 1, 2, 30). For categorical variables, the value of  $c$  is set to 1 and the odds ratio equals the exponent of the logistic regression coefficient.

Both the ELS:2002 and BPS:04/09 logistic regression analyses were conducted with the SUDAAN-callable procedure "PROC RLOGIST" using SAS, version 9.2. For the ELS:2002 analyses, the multiple imputation option was included in the SUDAAN procedure to include five imputed datasets, which are discussed in the next section ("Imputation procedures for ELS:2002 data"). The ELS:2002 analysis was weighted by the full sample weight (F2BYWT), and standard errors were calculated using balanced repeated replication (BRR) procedures with the replicate weights (F2BYP1 – F2BYP200). The BPS:04/09 analysis was weighted by the full sample weight (WTB000), and standard errors were calculated using BRR procedures with the replicate weights (WTB001 – WTB200).

In the ELS:2002 logistic regression model, the binary dependent variable was an indicator of whether an on-time 2004 high school graduate enrolled immediately in a postsecondary institution (i.e., by December 2004). Multiple categorical and continuous independent variables were entered simultaneously for the regression analysis to allow for the interpretation of relationships between each independent variable and immediate postsecondary enrollment, after controlling for other independent variables included in the model. The independent variables included in the ELS:2002 regression model include student's sex, race/ethnicity, socioeconomic status, family composition (i.e., number of parents/guardians in the household), standardized 10th-grade mathematics test score, 9th-grade GPA, previous grade retention status, sports and extracurricular activities participation status, number of absences from school, number of times skipped classes, parent engagement in discussing coursework with student, number of hours worked per week, and number of close friends who dropped out of high school. Only students who graduated from high school by August 2004 were used in the logistic model for immediate postsecondary enrollment.

In the BPS:04/09 logistic regression model, the binary dependent variable was an indicator of whether a recent high school graduate who began postsecondary enrollment in academic year 2003–04 attained an associate's or bachelor's degree by June 2009 (i.e., within 6 years of entering postsecondary education). Multiple categorical and continuous independent variables were entered simultaneously for the regression analysis to allow for the interpretation of relationships between each independent variable and associate's or bachelor's degree attainment, after controlling for other independent variables included in the model. The independent variables included in the BPS:04/09 regression model include student's sex, race/ethnicity, parents' educational attainment, income quartile in 2004, highest level of high school mathematics, indicators for college-level credits

earned in high school, SAT/ACT test taking, control and level of first postsecondary institution, whether the student declared a major during the first year, whether remedial classes were taken in the first year, whether the student met with advisor in the first year, school club and sports participation status in the first year, number of hours worked per week, attendance intensity pattern through 2009 (e.g., always enrolled full time), and number of “stopouts”<sup>1</sup> and transfers through 2009. Only students who graduated from high school in the year prior to entering postsecondary education were used in the logistic model for degree attainment.

Associations between student characteristics and the two outcome variables were examined for the full sample as well as separately for males and females; separately for Whites, Blacks, and Hispanics; and separately for males and females within each of these racial/ethnic groups. Multivariate analyses were not conducted for Asians, Native Hawaiians/Pacific Islanders, or American Indians/Alaska Natives due to small sample sizes. Also, for the Black male and female and Hispanic male and female subgroup models, some of the results that appear to be substantive in magnitude are not statistically significant due to small subgroup sample sizes.

The global fit of the full sample and subgroup logistic models were assessed using different diagnostic measures, including chi-squared statistics, pseudo *r* squared values, and measures of the increase in the percentage accuracy in classifying cases on the dichotomous outcome variable based on comparisons between an intercept-only model and a fully specified model. The Likelihood Ratio (LR) Chi-Square test results indicate that the fully specified model is a better fit than the intercept-only model for the full sample and subgroup logistic models. The diagnostic results also indicate that the percentage accuracy in predicting the outcome variable increased across all of the logistic regression models when the selected independent variables were included. For example, the overall ELS:2002 logistic regression model percentage accuracy increased from 69.65 percent for the intercept-only model to 77.12 percent for the fully specified model. For the BPS:04/09 model, the percentage accuracy increased from 53.17 percent for the intercept-only model to 75.47 percent for the fully specified model. The diagnostic results indicated adequate global fit of both regression models.

Odds ratios are calculated for each of the categorical independent variables used in the regression models and represent the likelihood of students in one category of an independent variable (referred to as the identity group) completing an event relative to a reference group. If the event is equally likely to occur for both groups, then the odds ratio value equals one. If a category has an odds ratio that is less than one, then students in the identity group have lower odds of immediate postsecondary enrollment than students in the reference group. For

<sup>1</sup> A “stopout” is defined as a temporary withdrawal of 5 or more consecutive months from enrollment at a postsecondary institution.

example, the odds ratio of 0.65 for males (table ELS-2) is the ratio of the odds of males immediately enrolling in postsecondary education after high school to the odds of females immediately enrolling, after accounting for the effect of all of the other predictor variables in the model. The odds ratio of 0.65 indicates that the odds of a male immediately enrolling in postsecondary education after high school graduation are 35 percent lower [computed as  $((\text{odds ratio} - 1) \times 100) = ((0.65 - 1) * 100)$ ] than the odds for a female (i.e., males are less likely than females to immediately enroll in postsecondary education). In this example, females are the reference group for the predictor variable. If a group category has an odds ratio greater than one, then students in the identity group are more likely to exhibit a certain outcome than students in the reference group. For example, the odds ratio of 1.63 for students who first enrolled in a 4-year postsecondary institution (table BPS-2) indicates that such a student has 63 percent higher odds of attaining a degree within 6 years than a student who first enrolled in a less-than-4-year institution. For continuous predictor variables, such as standardized test scores or number of postsecondary institution transfers, results are also interpreted in the form of odds ratios based on one unit of change in the independent variable. For example, in table ELS-2, the odds ratio of 1.88 for 9th-grade GPA indicates that a one-point increase in a student’s 9th-grade GPA value (e.g., from a 2.0 to a 3.0) is associated with an 88 percent increase in the odds of the student immediately enrolling in postsecondary education. Asterisks (\*) are used in the chapter tables to denote findings that are statistically significant at the .05 level.

## Imputation procedures for ELS:2002 data

Prior to conducting logistic regression analyses with the ELS:2002 data, sequential regression multiple imputation (SRMI) was used to impute missing values for the subset of variables that were planned for inclusion in the analysis. This method was implemented in IVEware: Imputation and Variance Estimation Software<sup>®</sup>. Research Triangle Institute conducted the imputation procedures and prepared the technical documentation for the analysis. This section provides justification for using the SRMI imputation method and details about the steps taken to conduct imputation procedures for the purposes of this report. More information about the SRMI procedure can be found in Raghunathan et al. (2001).

The SRMI methodology provides two main advantages. The first is that it can be used to impute missing values for many types of variables—that is, categorical (binary and nominal), continuous, count, and mixed<sup>2</sup>—so that imputations are tailored to the specific type of variable that is being imputed. Categorical variables are imputed using logistic regression for binary variables

<sup>2</sup> A mixed variable is a continuous variable with a significant number of observations having a zero value. If one looked at a density plot of a mixed variable, there would be a spike at zero with the rest of the distribution taking on any number of shapes (e.g., approximately normal, skewed).



and polychotomous regression for nominal variables. Continuous variables are imputed using linear regression. Count variables are imputed using Poisson regression. Mixed variables are imputed using a two-stage process: the first stage imputes a binary value, and the second stage imputes a continuous value for the first-stage imputed values that were imputed as a value of one. For each of these types of models, one can also include restrictions on observations that will receive an imputed value and bounds on the range of imputed values. The second advantage of the SRMI methodology is that it can use all of the available information in a dataset to impute each variable. That is, it takes advantage of all the variables in a dataset to produce the most informed and realistic imputed values. It can iterate through the variables in the dataset several times to reinforce the relationships among variables and improve the imputed values.

As a preliminary step, about 80 ELS:2002 variables were selected for imputation procedures. The variables selected included potential dependent and independent variables planned for the logistic regression model, as well as covariates that were not part of the model but were thought to be related to the variables with missing values. The 80 variables were assigned an appropriate “missing” code to be used in the imputation software so the software would recognize the data as missing and require imputation. Next, the variable type (i.e., categorical, continuous, count, or mixed) was identified for each variable. Lastly, bounds were set on the imputed values to identify the range of the valid responses for each variable. After these steps were completed, the data were ready for imputation. Fifty-five variables that were originally planned for use in the ELS:2002 logistic regression analysis required imputation. The percentage of missing values for these variables ranged from 0.02 to 33.64 percent (see exhibit A).

## Exhibit A. ELS:2002 variables requiring imputation

Variable name	Variable label	Type	Count	Skip	Valid	Missing	Missing (%)	Response (%)
F2B01	Ever applied to postsecondary school	Categorical	15,689	1,650	14,036	3	0.02	99.98
F2A02	Type of high school credential received—diploma/certificate/GED	Categorical	15,689	12,878	2,808	3	0.11	99.89
F2PSEND	Last period of postsecondary education (i.e., persistence)	Categorical	15,689	5,155	10,513	21	0.20	99.80
F2PSSTRT	When started postsecondary education	Categorical	15,689	5,155	10,513	21	0.20	99.80
F2PS1FTP	Enrollment intensity at first postsecondary institution	Categorical	15,689	5,155	10,511	23	0.22	99.78
F2B22	Major declared/undeclared	Categorical	15,689	7,114	8,551	24	0.28	99.72
F2B18A	Talk with faculty about academic matters outside of class	Categorical	15,689	5,155	10,500	34	0.32	99.68
F2B18B	Meet with advisor about academic plans	Categorical	15,689	5,155	10,492	42	0.40	99.60
F1S15	Diploma or certificate most likely to receive	Categorical	15,689	1,506	14,119	64	0.45	99.55
F2B18G	Participate in other extracurricular activities	Categorical	15,689	5,155	10,480	54	0.51	99.49
F2PS1REM	Took math/writing/reading remedial course at 1st postsec institution	Categorical	15,689	1,542	14,072	75	0.53	99.47
F2B18E	Participate in intramural or nonvarsity sports	Categorical	15,689	5,155	10,471	63	0.60	99.40
F2B18F	Participate in varsity or intercollegiate sports	Categorical	15,689	5,155	10,470	64	0.61	99.39
F1S14	Grade level (at first follow-up)	Categorical	15,689	2,064	13,541	84	0.62	99.38
F1S21C	Took or plans to take SAT or ACT	Categorical	15,689	2,064	13,447	178	1.31	98.69
F1S65A	How many friends dropped out of high school	Count	15,689	826	14,634	229	1.54	98.46
BYS37	Importance of good grades to student	Categorical	15,689	884	14,545	260	1.76	98.24
BYXTRACU	Number of school-sponsored activities participated in 01–02	Count	15,689	884	14,526	279	1.88	98.12
F1WRKHRS	F1 hours worked per week during 03–04 school year	Mixed	15,689	826	14,566	297	2.00	98.00
F1S65D	How many friends plan to attend 4-year college/university	Count	15,689	826	14,557	306	2.06	97.94
F1S65B	How many friends plan to have full-time job after high school	Count	15,689	826	14,548	315	2.12	97.88
F2B29A	No longer enrolled due to completion of degree/certificate	Categorical	15,689	13,730	1,917	42	2.14	97.86
F2C31P	Hours worked weekly during 2005–2006 school year—categorical	Continuous	15,689	8,930	6,602	157	2.32	97.68
F1S65C	How many friends plan to attend 2-year community college or technical school	Count	15,689	826	14,501	362	2.44	97.56
F1RGP9	GPA for all 9th-grade courses	Continuous	15,689	1,294	13,995	400	2.78	97.22
F2C26P	Hours worked weekly during 2004–2005 school year—categorical	Continuous	15,689	8,938	6,515	236	3.50	96.50
BYS28	How much likes school	Categorical	15,689	884	14,277	528	3.57	96.43

See notes at end of exhibit.

## Exhibit A. ELS:2002 variables requiring imputation—Continued

Variable name	Variable label	Type	Count	Skip	Valid	Missing	Missing (%)	Response (%)
BYS57	Plans to continue education after high school	Categorical	15,689	1,843	13,226	620	4.48	95.52
BYS24B	How many times cut/skip classes	Count	15,689	884	14,039	766	5.17	94.83
BYNSPORT	BY number of interscholastic sports participated in at V or JV level	Count	15,689	884	13,945	860	5.81	94.19
BYS33H	Ever in dropout prevention program	Categorical	15,689	884	13,935	870	5.88	94.12
BYS33L	Ever in program to help prepare for college	Categorical	15,689	884	13,911	894	6.04	93.96
BYS33I	Ever in special education program	Categorical	15,689	884	13,907	898	6.07	93.93
BYS33K	Ever in career academy	Categorical	15,689	884	13,866	939	6.34	93.66
BYS26	High school program-student self-report	Categorical	15,689	884	13,857	948	6.40	93.60
BYS33G	Ever in English as a Second Language program	Categorical	15,689	884	13,844	961	6.49	93.51
BYS33D	Ever in a remedial English class	Categorical	15,689	884	13,720	1,085	7.33	92.67
BYS33E	Ever in a remedial math class	Categorical	15,689	884	13,685	1,120	7.57	92.44
BYP46	10th-grader ever held back a grade	Categorical	15,689	2,491	12,178	1,020	7.73	92.27
BYS58	Type of school plans to attend	Categorical	15,689	2,212	12,345	1,132	8.40	91.60
F1SARACE	Individual race variables	Categorical	15,689	0	14,304	1,385	8.83	91.17
F2HSATTM	High school attainment indicator (academic risk)	Categorical	15,689	0	14,270	1,419	9.04	90.96
BYS59A	Has gone to counselor for college entrance information	Categorical	15,689	2,212	12,220	1,257	9.33	90.67
BYS59B	Has gone to teacher for college entrance information	Categorical	15,689	2,212	12,220	1,257	9.33	90.67
BYS59C	Has gone to coach for college entrance information	Categorical	15,689	2,212	12,220	1,257	9.33	90.67
BYP09	Number of siblings who dropped out of high school	Count	15,689	3,233	11,208	1,248	10.02	89.98
BYS56	How far in school student thinks will get	Categorical	15,689	884	13,096	1,709	11.54	88.46
F1RGPA	Transcript reported cumulative GPA	Continuous	15,689	1,294	12,550	1,845	12.82	87.18
BYS86A	How often discussed school courses with parents	Categorical	15,689	884	12,248	2,557	17.27	82.73
BYS86B	How often discussed school activities with parents	Categorical	15,689	884	12,224	2,581	17.43	82.57
BYS86G	How often discussed going to college with parents	Categorical	15,689	884	12,097	2,708	18.29	81.71
BYS75	How many hours usually works a week	Continuous	15,689	6,151	6,827	2,711	28.42	71.58
BYS90F	Important to friends to finish high school	Categorical	15,689	884	10,334	4,471	30.20	69.80
BYS90H	Important to friends to continue education past high school	Categorical	15,689	884	10,272	4,533	30.62	69.38
BYS91	Number of close friends who dropped out	Categorical	15,689	884	9,824	4,981	33.64	66.36

NOTE: *Count* identifies the total number of observations. *Skip* identifies the number of observations that were legitimate skips. *Valid* indicates the number of valid responses. *Missing* indicates the number of missing responses. *Missing (%)* is the number of missing observations divided by the number of valid and missing observations. *Response (%)* is the number of valid responses divided by the number of valid and missing observations.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), "Second Follow-up, 2006."

SRMI was conducted independently for each of the five imputed datasets that were created for this project. Below is a brief description of the methodology used for creating each dataset.

Let  $\mathbf{X}$  be the matrix of variables that have no missing values. Also, let there be  $m$  variables with missing values ordered from the variable with the lowest percentage of missing values to the variable with the highest percentage of missing values. These variables are denoted by the vectors  $\mathbf{y}_1, \mathbf{y}_2, \dots, \mathbf{y}_m$ . There were five iterations of imputations within each of the five imputed datasets. In the first iteration,  $\mathbf{y}_1$  was regressed on  $\mathbf{X}$  for the observations that had a valid value for  $\mathbf{y}_1$ . The information produced from this regression was used to impute for the missing values of  $\mathbf{y}_1$  to create  $\mathbf{y}_1^*$  ( $\mathbf{y}_1^*$  indicates that the  $\mathbf{y}_1$  vector included the imputed values). Next,  $\mathbf{y}_2$  was regressed on  $\mathbf{X}$  and  $\mathbf{y}_1^*$  and the information from this regression was used to impute the missing values of  $\mathbf{y}_2$  (thus creating  $\mathbf{y}_2^*$ ). This process continued until  $\mathbf{y}_m$  was regressed on  $\mathbf{X}, \mathbf{y}_1^*, \dots, \mathbf{y}_{m-1}^*$ , and the missing values for  $\mathbf{y}_m$  were imputed, creating  $\mathbf{y}_m^*$ . This completed the first iteration.

For the second through fifth rounds of imputation, the same general process was followed except that every variable (including the imputed values for the imputed variables) other than the variable being imputed was used in the regression. For the variable requiring imputation, the original variable (including the missing values) is modeled. For example, to impute  $\mathbf{y}_i$  (the original variable with missing values) in the second iteration, we regressed  $\mathbf{y}_i$  on  $\mathbf{X}, \mathbf{y}_1^*, \dots, \mathbf{y}_{i-1}^*, \mathbf{y}_{i+1}^*, \dots, \mathbf{y}_m^*$ , using the imputed values,  $\mathbf{y}_1^*, \dots, \mathbf{y}_{i-1}^*, \mathbf{y}_{i+1}^*, \dots, \mathbf{y}_m^*$ , from the first iteration. For the third iteration, we regressed  $\mathbf{y}_i$  on  $\mathbf{X}$  and the imputed values from the second round of imputation. For the fourth iteration, we regressed  $\mathbf{y}_i$  on  $\mathbf{X}$  and the imputed values from the third round of imputation. Finally, for the fifth iteration, we regressed  $\mathbf{y}_i$  on  $\mathbf{X}$  and the imputed values from the fourth round of imputation. After the fifth iteration was completed, the imputed values,  $\mathbf{y}_1^*, \dots, \mathbf{y}_m^*$ , from the fifth round of imputation were retained for each of the five imputed datasets.

Applying this methodology to the ELS:2002 dataset, IVEware was used to produce five files that included the 55 variables selected for imputation and the other 25 variables that did not require imputation. Once the imputation procedures were completed, quality checks were performed to ensure that the imputed data had the same format as the original data. In addition, quality checks were developed specifically for both categorical and continuous variables. Distributions before and after imputation were visually reviewed to assess whether the imputed values were reasonable and to identify any significant deviations between the distributions. Furthermore, numeric checks were based on the percentages of each category for the categorical variables and on the quantiles represented by the minimum value, deciles, and maximum value for continuous variables.

Large deviations in the relative proportions of imputed and unimputed values within categories or deviations for the imputed and unimputed densities for continuous variables would indicate a variable that should be investigated. The quality control checks did not detect any concerns with the imputation procedures.

One consideration in using SRMI is that it assumes that the dataset was generated from a simple random sample design. However, most complex survey designs involve stratification, clustering, and differential weighting. To account for this consideration, the survey design information—i.e., stratum and cluster (school)—and a weight were used in the imputation models.

## Glossary of variables used in regression analyses

### ELS:2002 variables

#### **When started postsecondary education (F2PSSTRT).**

First period of attendance at the student's first attended postsecondary institution. For the logistic regression analysis, students were grouped into two categories: "immediate postsecondary enrollment" if they enrolled in their first "real" postsecondary institution by December 2004 and "no postsecondary enrollment" if they either enrolled in their first "real" postsecondary institution after December 2004 or they had no postsecondary enrollment through 2006.

**First follow-up sex composite (F1SEX).** For base-year students, this variable was constructed from the base-year student questionnaire or, where missing, from (in order of preference) the school roster or logical imputation based on first name.

**First follow-up student's race/ethnicity composite (restricted) (F1RACE\_R).** This race/ethnicity variable includes seven categories: (1) American Indian or Alaska Native; (2) Asian or Pacific Islander, including Native Hawaiian; (3) Black or African American; (4) Hispanic, no race specified; (5) Hispanic, race specified; (6) more than one race; and (7) White. Categories 1, 2, 3, 6, and 7 exclude individuals of Hispanic or Latino origin. For presentation in this report, categories 4 and 5 are combined into "Hispanic or Latino." The ELS:2002 race variables reflect new federal standards that require collecting race separately from ethnicity and allow students to mark more than one choice for race. For base-year students, information on race/ethnicity was obtained from the base-year student questionnaire when available or (in order of preference) from the sampling roster, the parent questionnaire (if the parent respondent was a biological parent), or logical imputation based on other questionnaire items (e.g., surname, native language). For the logistic regression analysis, results for "American Indian or Alaska Native," "Native Hawaiian/other Pacific Islander," and "Other" were collapsed into a single "Other race" category due to small sample sizes.

**First follow-up socioeconomic status composite, F1SES2.** F1SES2 is a composite variable constructed from parent questionnaire data, when available, and from imputation or student substitutions, when not. SES is based on five equally weighted, standardized components: father's/guardian's education (F1FATHED), mother's/guardian's education (F1MOTHED), family income (BYINCOME), father's/guardian's occupational prestige score (from F1OCCUFATH), and mother's/guardian's occupational prestige score (from F1OCCUMOTH). Father's and mother's education were based on parent reports when available; otherwise, on student reports. If still missing, they were imputed. Income was based on parent questionnaire information or imputed otherwise. The parent questionnaire was the preferred source of data for mother's and father's occupation. In the absence of parent questionnaire occupation data, student-supplied parent occupation information from the base year (for base-year respondents) was coded by project staff, if possible. Missing occupations were imputed.

**First follow-up family composition (F1FCOMP).** This variable indicates the student's family composition and was constructed using the reports of parents in 2002. It was coded into four categories: mother and father, mother or father and guardian, single parent (mother or father), and other. For the logistic regression analysis, students were grouped into two categories: "two-parent/guardian household" and "single-parent/guardian household."

**Base-year mathematics standardized score (BYTXMSTD).** The standardized T score provides a norm-referenced measurement of achievement: that is, an estimate of achievement relative to the population (spring 2002 10th-graders) as a whole. It provides information on status compared to peers (as distinguished from an IRT-estimated number-right score, which represents status with respect to achievement on a particular criterion set of test items). The transformation to a familiar metric with a mean of 50 and standard deviation of 10 facilitates comparisons in standard deviation units.

**GPA for all 9th-grade courses (F1RGP9).** Students' 9th-grade GPA was taken from high school transcript data and represents the GPA for all 9th-grade courses, based on a four-point scale (A = 4.0; F = 0.0).

**10th-grader ever held back a grade (BYP46).** This variable, taken directly from the parent questionnaire, indicates parents' response to the question, "Was your tenth-grader ever held back a grade in school?"

**Base-year number of interscholastic sports participated in at varsity or junior varsity level (BYNSPORT).** This variable is constructed based on a set of eight interscholastic sports and indicates the number of these sports that the student participated in during the 2001–02 school year, regardless of the level of participation (junior varsity or varsity). The eight sports used as inputs for this variable are baseball, softball, basketball, football, soccer, "other interscholastic

team sport," "individual interscholastic team sport," and cheerleading/drill team. For the logistic regression analysis, students were grouped into two categories: "participated in sports" and "did not participate in sports."

**Number of school-sponsored activities participated in during 2001–02 (BYXTRACU).** This variable is constructed based on a set of nine school-sponsored activities and indicates the number of these activities that the student participated in during the 2001–02 school year. The nine school-sponsored activities used as inputs for this variable are school band/chorus, a school play or musical, student government, academic honor society, school yearbook or newspaper, school service clubs, school academic clubs, school hobby clubs, and school vocational clubs. For the logistic regression analysis, students were grouped into three categories: "no extracurricular activities," "one extracurricular activity," and "two or more extracurricular activities."

**How many times absent from school (BYS24C).** This variable, taken directly from the student questionnaire, indicates how many times the student was absent from school in the first semester or term of the school year: "never," "1–2 times," "3–6 times," "7–9 times," or "10 or more times." For the logistic regression analyses, the responses were collapsed into three categories: "absent 0–2 times," "absent 3–6 times," and "absent 7 or more times."

**How many times cut/skip classes (BYS24B).** This variable, taken directly from the student questionnaire, indicates how many times the student cut or skipped class in the first semester or term of the school year: "never," "1–2 times," "3–6 times," "7–9 times," or "10 or more times." For the logistic regression analysis, the responses were collapsed into two categories: "never skipped class" and "skipped class at least once."

**How often discussed school courses with parents (BYS86A).** This variable indicates students' response to the survey question, "In the first semester or term of this school year, how often have you discussed the following with either or both of your parents or guardians? a. Selecting courses or programs at school." Response options were "never," "sometimes," and "often." For the logistic regression analysis, all three response options were included.

**How many hours usually works a week (BYS75).** This student questionnaire variable is top-coded at 41 hours or more. All students who had ever worked for pay were instructed to report the number of hours they usually work/worked each week. Variable is based on BYS72 ("Have you ever worked for pay/are you currently employed?") and BYS75 ("How many hours do/did you work each week on your current or most recent job?"). For the logistic regression analysis, the data were collapsed into "no hours," "1 to 20 hours per week," and "more than 20 hours per week."

**Number of close friends who dropped out (BYS91).**

This variable indicates students' response to the survey question, "Altogether, how many of your close friends have dropped out of school before graduating? (Do not include those who have transferred to another school.)" Response options include "none," "some," "most," or "all of them." For the logistic regression analysis, the categories were collapsed into "no friends dropped out of high school" and "one or more friends dropped out of high school."

**BPS:04/09 variables**

**Attainment or level of last institution enrolled in through 2009 (PRLVL6Y).** Indicates the highest degree attained or, if no degree was attained, the level of the institution where the student was enrolled in the spring of 2009. Response options for this variable include "attained bachelor's degree," "attained associate's degree," "attained certificate," "no degree, enrolled at 4-year," "no degree, enrolled at less-than-4-year," and "no degree, not enrolled." For the logistic regression analysis, the categories "attained bachelor's degree" and "attained associate's degree" were collapsed into "attained a degree within 6 years of postsecondary enrollment" and the categories "no degree, enrolled at 4-year," "no degree, enrolled at less-than-4-year," and "no degree, not enrolled" were collapsed into "did not attain a degree within 6 years of postsecondary enrollment."

**Gender (GENDER).** Indicates the student's sex.

**Race/ethnicity (RACE).** This race/ethnicity variable includes eight categories: (1) White; (2) Black or African American; (3) Hispanic or Latino; (4) Asian; (5) American Indian or Alaska Native; (6) Native Hawaiian/other Pacific Islander; (7) Other; and (8) more than one race. For the logistic regression analysis, the results for "American Indian or Alaska Native," "Native Hawaiian/other Pacific Islander," "Other," and "more than one race" were collapsed into a single "Other race" category due to small sample sizes.

**Parent's highest level of education (PAREduc).** Indicates the highest level of education of either parent of the student during the 2003–04 academic year. Response options for this variable include "don't know," "did not complete high school," "high school diploma or equivalent," "vocational or technical training," "less than 2 years of college," "associate's degree," "2 or more years of college but no degree," "bachelor's degree," "master's degree or equivalent," "first-professional degree," and "doctoral degree or equivalent." For the logistic regression, cases with values of "don't know" were dropped from the model; the "did not complete high school," "high school diploma or equivalent," and "vocational or technical training" categories were collapsed into a "HS diploma or less and vocational/technical training" category; the "less than 2 years of college," "associate's degree," and "2 or more years of college but no degree" categories were

collapsed into a "some college, less than bachelor's degree" category; and the "bachelor's degree," "master's degree or equivalent," "first-professional degree," and "doctoral degree or equivalent" categories were collapsed into a "bachelor's or higher degree" category.

**Income quartile in 2003–04 (INCGRP).** Indicates the income group of the student, based on total income in 2002 for independent students or parents of dependent students. Income groups were determined separately for dependent and independent students based on percentile rankings and then combined into one variable.

**Highest level of high school mathematics (HCMATH).** Indicates the highest level of mathematics that the student completed or planned to take, according to self-reporting on the standardized test questionnaire and student interview. Response options for this variable include "none of these," "algebra II," "trigonometry/algebra II," "pre-calculus," and "calculus." For the logistic regression analysis, the "algebra II" and "trigonometry/algebra II" categories were collapsed into an "algebra II/trigonometry" category, and the "pre-calculus" and "calculus" categories were collapsed into a "pre-calculus/calculus" category.

**Earned any college level credits in high school (CRDHS04).** Indicates whether the student earned any college credits while he/she was in high school.

**SAT or ACT exams taken (TETOOK).** Indicates whether the student took the SAT or ACT college entrance exam. A student is considered to have taken an exam if the agency or institution reports a test score or the student reports in the student interview having taken the test. Response options for this variable include "did not take SAT or ACT," "took only the SAT," "took only the ACT," and "took both the SAT and ACT." For the logistic regression analysis, the categories were collapsed into a "did not take SAT or ACT" and "took an SAT or ACT."

**First institution control 2003–04 (FCONTROL).** Indicates the control of the first institution (public, private nonprofit, or private for-profit) that the student attended during the 2003–04 academic year.

**First institution level 2003–04 (FLEVEL).** Indicates the level of the first institution that the student attended during the 2003–04 academic year. Response options for this variable include "4-year," "2-year," and "less-than-2-year." For the logistic regression analysis, the "2-year" and "less-than-2-year" categories were collapsed into a "less-than-4-year" category.

**Major during first year 2003–04 (MAJORS).** Student's major or field of study during the 2003–04 academic year. For the logistic regression analysis, responses were collapsed into two categories: "no major declared" and "major declared."

**Remedial course 2004: Any taken (REMETOOK).**

Indicates whether the student took any remedial or developmental courses during the 2003–04 academic year.

**Frequency 2004: Meet academic advisor (FREQ04C).**

Indicates whether or how often the student met with an advisor concerning academic plans during the 2003–04 academic year. For the logistic regression analysis, the “sometimes” and “often” categories were collapsed into a single “yes” category that indicated participation.

**Frequency 2004: School clubs (FREQ04E).** Indicates whether or how often the student participated in school clubs during the 2003–04 academic year. For the logistic regression analysis, the “sometimes” and “often” categories were collapsed into a single “yes” category that indicated participation.

**Frequency 2004: School sports (FREQ04F).** Indicates whether or how often the student participated in varsity, intramural, or club sports during the 2003–04 academic year. For the logistic regression analysis, the “sometimes” and “often” categories were collapsed into a single “yes” category that indicated participation.

**Job 2004: hours worked per week (including work study) (JOBHOUR2).** Indicates the average hours the student worked per week. For the logistic regression analysis, this continuous variable was categorized into three groups: “not working,” “working less than 20 hours a week,” and “working 20 or more hours a week.”

**Attendance intensity pattern through 2009 (ENINPT6Y).** Pattern of enrollment intensity for all months enrolled through June 2009. Response options for this variable include “always full-time,” “always part-time,” and “mixed.” For the logistic regression analysis, the “always part-time” and “mixed” categories were collapsed into a “not full-time” category.

**Stopouts number anywhere through 2009 (STNUM6Y).** Number of stopouts at all institutions attended, as of June 2009. A stopout is defined as a temporary withdrawal of 5 or more consecutive months from enrollment at a postsecondary institution.

**Number of transfers as of June 2009 (TFNUM6Y).** Number of transfers between institutions between entry to postsecondary education and June 2009.



# Appendix B

## Guide to Sources



# Appendix B: GUIDE TO SOURCES

## National Center for Education Statistics (NCES) Data Sources

### Beginning Postsecondary Students Longitudinal Study (BPS)

The Beginning Postsecondary Students Longitudinal Study (BPS) provides information on persistence, progress, and attainment from initial time of entry into postsecondary education through completion and entry into the workforce. BPS includes traditional and nontraditional (e.g., older) students and is representative of all beginning students in postsecondary education in a given year. Initially, these individuals are surveyed in the National Postsecondary Student Aid Study (NPSAS) during the year in which they first begin their postsecondary education. These same students are surveyed again 2 and 5 years later through BPS. By starting with a cohort that has already entered postsecondary education and following it for 6 years, BPS can determine to what extent students who start postsecondary education at various ages differ in their progress, persistence, and attainment. The first BPS was conducted in 1989–90, with follow-ups in 1992 and 1994. The second BPS was conducted in 1995–96, with follow-ups in 1998 and 2001. The third BPS was conducted in 2003–04, with follow-ups in 2006 and 2009. The fourth BPS is scheduled for 2012, with follow-ups in 2014 and 2017.

Further information on BPS may be obtained from

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[sarah.crissey@ed.gov](mailto:sarah.crissey@ed.gov)  
<http://nces.ed.gov/surveys/bps>

### Common Core of Data (CCD)

The Common Core of Data (CCD) is the Department of Education’s primary database on public elementary and secondary education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts containing data designed to be comparable across all states. This database can be used to select samples for other NCES surveys and provide basic information and descriptive statistics on public elementary and secondary schools and schooling in general. Some of the CCD’s component surveys date back to the 1930s. The integrated CCD was first implemented in the 1986–87 school year.

The CCD collects statistical information annually from approximately 100,000 public elementary and secondary schools and approximately 18,000 public school districts (including supervisory unions and regional education service agencies) in the 50 states, the District of Columbia, Department of Defense dependents schools (DoDDS), and the outlying areas. Three categories of information are collected in the CCD survey: general descriptive information on schools and school districts; data on students and staff; and fiscal data. The general descriptive information includes name, address, phone number, and type of locale; the data on students and staff include selected demographic characteristics; and the fiscal data pertain to revenues and current expenditures.

The *EDFacts* data collection system is the primary collection tool for the CCD. NCES works collaboratively with the Department of Education’s Performance Information Management Service to develop the CCD collection procedures and data definitions. Even though the CCD is a universe collection and thus not subject to sampling errors, nonsampling errors can occur. The two potential sources of nonsampling errors are nonresponse and inaccurate reporting. NCES attempts to minimize nonsampling errors through the use of annual training of SEA coordinators, extensive quality reviews, and survey editing procedures. In addition, each year, SEAs are given the opportunity to revise their state-level aggregates from the previous survey cycle.

Further information about the CCD and its survey components is available at <http://www.nces.ed.gov/ccd/>.

### Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K)

The Early Childhood Longitudinal Study, Kindergarten Class of 1998–99 (ECLS-K) was designed to provide detailed information on children’s early school experiences. The study began in the fall of 1998. A nationally representative sample of 21,260 children enrolled in 940 kindergarten programs during the 1998–99 school year was selected to participate in the ECLS-K. The children attended both public and private kindergartens, and full-day and part-day programs. The sample included children from different racial/ethnic and socioeconomic backgrounds and oversamples of Asian and Pacific Islander children and private school kindergartners. Base-year data were collected in the fall and spring of the kindergarten year. Data were collected again in the fall of 1st grade in 1999 (from a 30 percent subsample of schools) and the spring of 1st grade in 2000, and then in the spring of 3rd grade in 2002, the spring of 5th grade in 2004, and the spring of 8th grade in 2007.

From kindergarten to 5th grade, the ECLS-K included a direct child cognitive assessment that was administered one-on-one with each child in the study. The assessment used a computer-assisted personal interview (CAPI) approach and a two-stage adaptive testing methodology. In the 8th grade, a two-stage adaptive paper-and-pencil assessment was administered in small groups. At kindergarten and 1st grade, the assessment included three cognitive domains—reading, mathematics, and general knowledge. General knowledge was replaced by science at the 3rd, 5th, and 8th grades. Children’s height and weight were measured at each data collection point, and a direct measure of children’s psychomotor development was administered in the fall of the kindergarten year only. In addition to these measures, the ECLS-K collected information about children’s social skills and academic achievement through teacher reports, and through student reports at the 3rd, 5th, and 8th grades.

A computer-assisted telephone interview with the children’s parents/guardians was conducted at each data collection point. Parents/guardians were asked to provide key information about the ECLS-K sample children on subjects such as family demographics (e.g., family members, age, relation to child, race/ethnicity), family structure (e.g., household members and composition), parent involvement, home educational activities (e.g., reading to the child), child health, parental education and employment status, and the social skills and behaviors of their children.

Data on the schools that children attended and their classrooms were collected through self-administered questionnaires completed by school administrators and classroom teachers. Administrators provided information about the school population, programs, and policies. At the classroom level, data were collected from the teachers on the composition of the classroom, teaching practices, curriculum, and teacher qualifications and experience. In addition, special education teachers and related services staff provided reports on the services received by children with disabilities.

New data are being collected on a 2011 ECLS-K cohort. The first data collection began during the fall and spring of the 2010–11 school year. Follow-ups are planned for 2011–12 and in the spring from 2013–2016. This study will be similar to the older ECLS-K cohort, but it will provide insight into the more recent education policy changes, such as the No Child Left Behind Act, the increase in school choice, and the increase in English language learners.

Further information on the ECLS-K may be obtained from

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<http://nces.ed.gov/ecls/kindergarten.asp>

### Education Longitudinal Study of 2002 (ELS: 2002)

The Education Longitudinal Study of 2002 (ELS: 2002) is a longitudinal survey that is monitoring the transitions of a national probability sample of 10th-graders in public, Catholic, and other private schools. Survey waves follow both students and high school dropouts and monitor the transition of the cohort to postsecondary education, the labor force, and family formation.

In the base year of the study, of 1,220 eligible contacted schools, 750 participated, for an overall weighted school participation rate of approximately 68 percent (62 percent unweighted). Of 17,590 selected eligible students, 15,360 participated, for an overall weighted student response rate of approximately 87 percent. (School and student weighted response rates reflect use of the base weight [design weight] and do not include nonresponse adjustments.) Information for the study is obtained not just from students and their school records, but also from the students’ parents, their teachers, their librarians, and the administrators of their schools.

The first follow-up was conducted in 2004, when most sample members were high school seniors. Base-year students who remained in their base schools were resurveyed and tested in mathematics, along with a freshening sample to make the study representative of spring 2004 high school seniors nationwide. The study collected comparable information from students who dropped out, students who transferred to a different school, and students who graduated early.

The second follow-up, completed in 2006, continued to follow the sample of students into postsecondary education, the workforce, or both. The next follow-up is scheduled for 2012.

Further information on ELS: 2002 may be obtained from

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<http://nces.ed.gov/surveys/els2002>

## High School Longitudinal Study of 2009 (HLSL:09)

The High School Longitudinal Study of 2009 (HLSL:09) is a nationally representative, longitudinal study of more than 21,000 9th-grade students in 944 schools who will be followed through their secondary and postsecondary years. The study focuses on understanding students' trajectories from the beginning of high school into postsecondary education, the workforce, and beyond. Focused on but not limited to information on science, technology, engineering, and mathematics (STEM) education and careers, the HLSL:09 questionnaires are designed to provide data on mathematics and science education, the changing high school environment, and postsecondary education. This study features a new student assessment in algebra skills, reasoning, and problem solving and includes surveys of students, their parents, math and science teachers, and school administrators, as well as a new survey of school counselors.

The HLSL:09 student questionnaire includes interest and motivation items for measuring key factors predicting choice of postsecondary paths, including majors and eventual careers. This study will explore the roles of different factors in the development of a student's commitment to attend college and then to take the steps necessary to succeed in college (the right courses, courses in specific sequences, etc.). Questionnaires in this study will ask more questions of students and parents regarding reasons for selecting specific colleges (e.g., academic programs, financial aid and access prices, and campus environment). It will also look at levels of misinformation that may complicate postsecondary decisions.

HLSL:09 will be able to survey respondents during the critical junior and senior years regarding applications, acceptances, and rejections at colleges. A short computer-administered questionnaire will procure information on college acceptances and actual choices. In past longitudinal studies, this activity has been delayed to later follow-ups (2 years after high school).

Public-use HLSL data were used for report indicators when possible so that a wider audience could replicate the results. Restricted-use HLSL data were used for indicators that were based on variables or samples that could not be analyzed using the public-use file.

Further information on HLSL:09 may be obtained from

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<http://nces.ed.gov/surveys/hsls09>

## High School Transcript Study (HSTS)

High school transcript studies have been conducted by NCES as part of the Longitudinal Studies Program and the National Assessment of Educational Progress (NAEP) High School Transcript Studies (HSTS) program since 1982. Each transcript study is associated with a major NCES data collection. For example, the first NCES-sponsored transcript study was associated with the High School and Beyond (HS&B) first follow-up survey in 1982. The National Assessment of Educational Progress (NAEP) collected transcript data in 1987, 1990, 1994, 1998, 2000, 2005, and 2009.

NCES high school transcript studies collect information that is contained on the student high school record; this information includes courses taken while attending secondary school, information on credits earned, year and term a specific course was taken, and final grades. When available, information on class rank and standardized scores is also collected. Once collected, information such as course name, credits earned, and course grades is transcribed and standardized (e.g., credits and credit hours are standardized to a common metric) and can be linked back to the student's questionnaire or assessment data. For example, when transcript data are collected by NAEP, HSTS offers information on the relationship between student coursetaking patterns and grade 12 achievement data on NAEP assessments.

Transcripts include information that is considered to be the official and fixed record regarding student coursetaking behavior. This information is considered to be more accurate than student self-report information and can be used to examine coursetaking patterns of students and to predict future education outcomes.

The 2009 transcript study was conducted from late spring 2009 through January 2010, after the administration of NAEP. Transcripts were collected for 12th-grade students who graduated from high school by the end of the collection period. Most students also participated in the NAEP assessments earlier that same year.

Further information on NAEP high school transcript studies may be obtained from

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## Integrated Postsecondary Education Data System (IPEDS)

The Integrated Postsecondary Education Data System (IPEDS) surveys approximately 6,800 postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. IPEDS, which began in 1986, replaced the Higher Education General Information Survey (HEGIS).

IPEDS consists of eight interrelated components that are collected over three collection periods (fall, winter, and spring) each year. These components obtain information on who provides postsecondary education (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and both the human and financial resources involved in the provision of institutionally based postsecondary education. Until 2000, these components included institutional characteristics, fall enrollment, completions, salaries, finance, and fall staff. Beginning in 2000, data were collected in the fall for institutional characteristics and completions; in the winter for employees by assigned position (EAP), salaries, and fall staff; and in the spring for enrollment, student financial aid, finances, and graduation rates. With the winter 2005–06 survey, the employees by assigned position, fall staff, and salaries components were merged into the human resources component. In 2007–08, the enrollment component was broken into two separate components: 12-month enrollment (collected in the fall) and fall enrollment (collected in the spring).

IPEDS race/ethnicity data collection changed in 2008–09. The “Asian” race category is now separate from a “Native Hawaiian or Other Pacific Islander” category. Survey takers also have the option to identify themselves as being of “Two or more races.” To recognize that “Hispanic” refers to ethnicity, and not race, the new Hispanic category reads “Hispanics of any race.”

Researchers can use IPEDS to analyze information on (1) enrollments of undergraduates, first-time freshmen, and graduate and first-professional students by race/ethnicity and sex; (2) institutional revenue and expenditure patterns by source of income and type of expense; (3) completions (awards) by level of program, level of award, race/ethnicity, and sex; (4) characteristics of postsecondary institutions, including tuition, room and board charges, and calendar systems; (5) status of career and technical education programs; and (6) other issues of interest.

Beginning in 1993, the IPEDS survey completion became mandatory for all postsecondary institutions with a Program Participation Agreement (PPA) with the Office of Postsecondary Education (OPE), U.S. Department of Education—that is, institutions that participate in or are eligible to participate in any federal student financial assistance program authorized by Title IV of the Higher Education Act of 1965, as amended (20 USC

1094, Section 487 [a][17] and 34 CFR 668.14[b][19]). Such programs include Pell Grants and Stafford Loans given to students at 4-year and higher, 2-but-less-than-4-year, and less than 2-year postsecondary institutions, including degree and non-degree granting institutions. For institutions not eligible to participate in Title IV programs, participation in the IPEDS is voluntary. Prior to 1993, only national-level estimates from a sample of institutions are available for private less-than-2-year institutions.

Further information on IPEDS may be obtained from

Jessica Shedd  
Postsecondary, Adult, and Career Education Division  
Postsecondary Institutional Studies Program  
National Center for Education Statistics  
1990 K Street NW  
Washington, DC 20006  
[jessica.shedd@ed.gov](mailto:jessica.shedd@ed.gov)  
<http://nces.ed.gov/ipeds>

## National Assessment of Educational Progress (NAEP)

The National Assessment of Educational Progress (NAEP) is a series of cross-sectional studies initially implemented in 1969 to assess the educational achievement of U.S. students and monitor changes in those achievements. In the main national NAEP, a nationally representative sample of students is assessed at grades 4, 8, and 12 in various academic subjects.

The assessments are based on frameworks developed by the National Assessment Governing Board (NAGB). Items include both multiple-choice and constructed-response (requiring written answers) items. Results are reported in two ways: by average score and by achievement level. Average scores are reported for the nation, for participating states and jurisdictions, and for subgroups of the population. Percentages of students meeting certain achievement levels are also reported for these groups. The achievement levels, developed by NAGB, are at or above *Basic*, at or above *Proficient*, and at or above *Advanced*.

From 1990 until 2001, main NAEP was conducted for states and other jurisdictions that chose to participate. In 2002, under the provisions of the No Child Left Behind Act of 2001, all states began to participate in main NAEP and an aggregate of all state samples replaced the separate national sample.

Mathematics assessments were administered in 2000, 2003, 2005, 2007, 2009, and 2011. In 2005, NAGB called for the development of a new mathematics framework. The revisions made to the mathematics framework for the 2005 assessment were intended to reflect recent curricular emphases and better assess the specific objectives for students at each grade level.

The revised mathematics framework focuses on two dimensions: mathematical content and cognitive demand.

By considering these two dimensions for each item in the assessment, the framework ensures that NAEP assesses an appropriate balance of content, as well as a variety of ways of knowing and doing mathematics.

For grades 4 and 8, comparisons over time can be made among the assessments prior to and after the implementation of the 2005 framework. The changes to the grade 12 assessment were too drastic to allow the results to be directly compared with previous years. The changes to the grade 12 assessment included adding more questions on algebra, data analysis, and probability to reflect changes in high school mathematics standards and coursework, as well as the merging of the measurement and geometry content areas. The reporting scale for grade 12 mathematics was changed from 0–500 to 0–300. For more information regarding the 2005 mathematics framework revisions, see <http://nces.ed.gov/nationsreportcard/mathematics/frameworkcomparison.asp>.

Reading assessments were administered in 2000, 2002, 2003, 2005, 2007, 2009, and 2011. In 2009, a new framework was developed for the 4th-, 8th-, and 12th-grade NAEP reading assessments.

Both a content alignment study and a reading trend or bridge study were conducted to determine if the “new” assessment was comparable to the “old” assessment. Overall, the results of the special analyses suggested that the old and new assessments were similar in terms of their item and scale characteristics and the results they produced for important demographic groups of students. Thus, it was determined that the results of the 2009 reading assessment could still be compared to those from earlier assessment years, thereby maintaining the trend lines first established in 1992. For more information regarding the 2009 reading framework revisions, see <http://nces.ed.gov/nationsreportcard/reading/whatmeasure.asp>.

Further information on NAEP may be obtained from

Sherran T. Osborne  
Assessment Operations  
Outreach & Information Dissemination  
National Center for Education Statistics  
1990 K Street, NW  
Washington, DC 20006  
[sherran.osborne@ed.gov](mailto:sherran.osborne@ed.gov)  
<http://nces.ed.gov/nationsreportcard>

### National Household Education Surveys Program (NHES)

The National Household Education Surveys Program (NHES) is a data collection system that is designed to address a wide range of education-related issues. Surveys have been conducted in 1991, 1993, 1995, 1996, 1999, 2001, 2003, 2005, and 2007. Data collected for 2012 will be available in 2013. NHES targets specific populations

for detailed data collection. It is intended to provide more detailed data on the topics and populations of interest than are collected through supplements to other household surveys.

NHES: 2007 fielded two surveys: the Parent and Family Involvement in Education, and School Readiness. For the surveys, interviews were completed with parents of 10,680 sampled children in kindergarten through grade 12, including 10,370 students enrolled in public or private schools and 310 homeschooled children.

Further information on NHES may be obtained from

Andrew Zukerberg  
Early Childhood, International, and Crosscutting Studies  
Division  
Early Childhood and Household Studies Program  
National Center for Education Statistics  
1990 K Street NW  
Washington, DC 20006  
[andrew.zukerberg@ed.gov](mailto:andrew.zukerberg@ed.gov)  
<http://nces.ed.gov/nhes>

### National Postsecondary Student Aid Study (NPSAS)

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study of how students and their families pay for postsecondary education. It covers nationally representative samples of undergraduates, graduates, and first-professional students in the 50 states, the District of Columbia, and Puerto Rico, including students attending less-than-2-year institutions, community colleges, 4-year colleges, and major universities. Participants include students who do not receive aid as well as those who do receive financial aid. The data collected by NPSAS provide information on the cost of postsecondary education, the distribution of financial aid, and the characteristics of both aided and non-aided students and their families. Study results are used to help guide future federal policy regarding student financial aid.

The early NPSAS studies, which began during the 1986–87 school year, were conducted every 3 years, but from the 1999–2000 study to the present, NPSAS has been conducted every 4 years. The next cycle of NPSAS is scheduled for the 2011–12 school year. In the most recent study, NPSAS:08, about 114,000 undergraduate students and 14,000 graduate students enrolled in postsecondary education during the 2007–08 school year were selected from more than 1,730 postsecondary institutions. NPSAS:08 included a new set of instrument items to obtain baseline measures of the awareness of two new federal grants introduced in 2006: the Academic Competitiveness Grant (ACG) and the National Science and Mathematics Access to Retain Talent (SMART) grant.

Further information on NPSAS may be obtained from

Aurora D'Amico  
Tracy Hunt-White  
Postsecondary, Adult, and Career Education Division  
Postsecondary Sample Survey Studies Program  
National Center for Education Statistics  
1990 K Street NW  
Washington, DC 20006  
[aurora.damico@ed.gov](mailto:aurora.damico@ed.gov)  
[tracy.hunt-white@ed.gov](mailto:tracy.hunt-white@ed.gov)  
<http://nces.ed.gov/npsas>

## Other Governmental Agency Data Sources

### Census Bureau

#### American Community Survey (ACS)

The Census Bureau introduced the American Community Survey (ACS) in 1996. Fully implemented in 2005, it provides a large monthly sample of demographic, socioeconomic, and housing data comparable in content to the Long Forms of the Decennial Census up to and including the 2000 long form. Aggregated over time, these data will serve as a replacement for the Long Form of the Decennial Census. The survey includes questions mandated by federal law, federal regulations, and court decisions.

Since 2005, the survey has been mailed to approximately 250,000 addresses in the United States and Puerto Rico each month, or about 2.5 percent of the population annually. A larger proportion of addresses in small governmental units (e.g., American Indian reservations, small counties, and towns) also receive the survey. The monthly sample size is designed to approximate the ratio used in the 2000 Census, which requires more intensive distribution in these areas. The ACS covers the U.S. resident population, which includes the entire civilian, noninstitutionalized population; incarcerated persons; institutionalized persons; and the active duty military who are in the United States. In 2006, the ACS began interviewing residents in group quarter facilities. Institutionalized group quarters include adult and juvenile correctional facilities, nursing facilities, and other health care facilities. Noninstitutionalized group quarters include college and university housing, military barracks, and other noninstitutional facilities such as workers and religious group quarters and temporary shelters for the homeless.

National-level data from the ACS are available from 2000 onward. Annual results were available for areas with populations of 65,000 or more beginning in the summer of 2006; for areas with populations of 20,000 or more in the summer of 2008; and for all areas—down to the census tract level. This schedule is based on the time it will take to collect data from a sample size large enough to produce accurate results for different size geographic units.

Further information about the ACS is available at <http://www.census.gov/acs/www/>.

### Current Population Survey (CPS)

The Current Population Survey (CPS) is a monthly survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics. The CPS is the primary source of information of labor force statistics for the U.S. noninstitutionalized population (e.g., excludes military personnel and their families living on bases and inmates of institutions). In addition, supplemental questionnaires are used to provide further information about the U.S. population. Specifically, in October, detailed questions regarding school enrollment and school characteristics are asked. In March, detailed questions regarding income are asked.

The current sample design, introduced in July 2001, includes about 72,000 households. Each month about 58,900 of the 72,000 households are eligible for interview, and of those, 7 to 10 percent are not interviewed because of temporary absence or unavailability. Information is obtained each month from those in the household who are 15 years of age and older and demographic data are collected for children 0–14 years of age. Prior to July 2001, data were collected in the CPS from about 50,000 dwelling units. The samples are initially selected based on the decennial census files and are periodically updated to reflect new housing construction.

The estimation procedure employed for monthly CPS data involves inflating weighted sample results to independent estimates of characteristics of the civilian noninstitutional population in the United States by age, sex, and race. These independent estimates are based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the population in the armed services. Generalized standard error tables are provided in the *Current Population Reports*; methods for deriving standard errors can be found within the CPS technical documentation at <http://www.census.gov/cps/methodology/techdocs.html>. The CPS data are subject to both nonsampling and sampling errors.

Beginning in 2003, race/ethnicity questions expanded to include information on people of two or more races. Pacific Islander/Native Hawaiian data is collected separately from Asian data. The questions have also been worded to make it clear that self-reported data on race/ethnicity should reflect the race/ethnicity with which the responder identifies, rather than what may be written in official documentation.

### October Supplement

Each year, the Annual Social and Economic (ASEC) Supplement and October supplemental questionnaires contain questions of relevance to education policy. The ASEC Supplement, formerly known as the March CPS Supplement, is a primary source of detailed information on income and work experience in the United States. The

October Supplement routinely gathers data on school enrollment, school characteristics, and educational attainment for elementary, secondary, and postsecondary education. Related data are also collected about preschooling and the general adult population. NCES funds additional items on education-related topics such as language proficiency, disabilities, computer use and access, student mobility, and private school tuition. Responses are collected for all household members age 3 and over.

Further information on CPS may be obtained from

Education and Social Stratification Branch  
Population Division  
Census Bureau  
U.S. Department of Commerce  
4600 Silver Hill Road  
Washington, DC 20233  
<http://www.census.gov/cps>

## Centers for Disease Control and Prevention (CDC)

### Youth Risk Behavior Surveillance System (YRBSS)

The Youth Risk Behavior Surveillance System (YRBSS) was created in 1991 to monitor six types of health-risk behaviors that lead to death and disability among young adults: tobacco use, alcohol and other drug use, physical inactivity, sexual risk behaviors, unhealthy diet behaviors, and behaviors that contribute to unintentional injuries and violence. Obesity and asthma among youth and young adults are also measured. Surveys are conducted every 2 years, usually in the spring semester.

The system includes a national school-based survey conducted by the Centers for Disease Control and Prevention (CDC), as well as state, territorial, tribal, and local surveys conducted by state, territorial, and local health and education agencies and tribal governments. Each survey takes one class period to complete, approximately 10 minutes to distribute materials and give directions and 35 minutes to record responses. Permission is obtained from parents before administering this anonymous, voluntary survey. States and local agencies can add or delete questions from the core questionnaire to meet their policy or programmatic needs.

Local, territorial, and jurisdictional data from YRBSS surveys are weighted to represent all public school students in grades 9 through 12 in the respective jurisdiction. National data are collected from a separate scientific sample of students and are representative of students from all 50 states and the District of Columbia. Sample size varies according to area, district, or school administering the survey. Methodological studies were conducted in 1991 and 1999 to assess the validity of the self-reported behaviors and personal information. Research indicates that student-reported data is just as credible as that gathered from adults.

Further information on the YRBSS may be obtained from

U.S. Department of Health and Human Service  
Division of Adolescent and School Health  
4770 Buford Highway, NE  
Atlanta, GA 30341  
(800) 232-4636  
[cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)  
<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>

## National Center for Health Statistics

### National Health Interview Survey (NHIS)

The main objective of the NHIS is to monitor the health of the United States population through the collection and analysis of data on a broad range of health topics. A major strength of this survey lies in the ability to display these health characteristics by many demographic and socioeconomic characteristics.

The NHIS covers the civilian noninstitutionalized population residing in the United States at the time of the interview. The NHIS is a cross-sectional household interview survey. Sampling and interviewing are continuous throughout each year. The sampling plan follows a multistage area probability design that permits the representative sampling of households and noninstitutional group quarters (e.g., college dormitories). The sampling plan is redesigned after every decennial census. The current sampling plan was implemented in 2006. It has many similarities to the previous sampling plan, which was in place from 1995 to 2005. The first stage of the current sampling plan consists of a sample of 428 primary sampling units (PSU's) drawn from approximately 1,900 geographically defined PSU's that cover the 50 States and the District of Columbia. A PSU consists of a county, a small group of contiguous counties, or a metropolitan statistical area.

The revised NHIS questionnaire, implemented since 1997, has Core questions and Supplements. The Core questions remain largely unchanged from year to year and allow for trends analysis and for data from more than one year to be pooled to increase sample size for analytic purposes. The Core contains four major components: Household, Family, Sample Adult, and Sample Child.

The Household component collects limited demographic information on all of the individuals living in a particular house. The Family component verifies and collects additional demographic information on each member from each family in the house and collects data on topics including health status and limitations, injuries, healthcare access and utilization, health insurance, and income and assets. The Family Core component allows the NHIS to serve as a sampling frame for additional integrated surveys as needed.

Data are collected through a personal household interview conducted by interviewers employed and trained by the U.S. Bureau of the Census according to procedures specified by the NCHS.

Further information on the NHIS may be obtained from

Information Dissemination Staff  
National Center for Health Statistics  
Centers for Disease Control and Prevention  
3311 Toledo Road, Room 5407  
Hyattsville, MD 20782-2003  
(800) 232-4636  
[nhis@cdc.gov](mailto:nhis@cdc.gov)  
<http://www.cdc.gov/nchs/nhis.htm>

## Other Organization Sources

### American College Testing Program

#### ACT assessment

The ACT assessment is designed to measure educational development in the areas of English, mathematics, social studies, and natural sciences. The ACT assessment is taken by college-bound high school students and by all graduating seniors in Colorado and Illinois. The test results are used to predict how well students might perform in college.

Prior to the 1984–85 school year, national norms were based on a 10-percent sample of the students taking the test. Since then, national norms are based on the test scores of all students taking the test. Beginning with 1984–85, these norms have been based on the most recent ACT scores available from students scheduled to graduate in the spring of the year. Duplicate test records are no longer used to produce national figures.

Separate ACT standard scores are computed for English, mathematics, science reasoning, and, as of October 1989, reading. ACT standard scores are reported for each subject area on a scale from 1 to 36. In 2010, the national composite score (the simple average of the four ACT standard scores) was 21.0, with a standard deviation of 5.2. The tests emphasize reasoning, analysis, problem solving, and the integration of learning from various sources, as well as the application of these proficiencies to the kinds of tasks college students are expected to perform.

It should be noted that graduating students who take the ACT assessment are not necessarily representative of graduating students nationally. Students who live in the Midwest, Rocky Mountains, Plains, and South are overrepresented among ACT-tested students as compared to graduating students nationally. These students more often attend public colleges and universities, which require the ACT assessment more often than the SAT test.

Further information on the ACT may be obtained from

ACT  
500 ACT Drive  
P.O. Box 168  
Iowa City, IA 52243  
<http://www.act.org>

## College Entrance Examination Board

### Advanced Placement Exam (AP)

The Advanced Placement (AP) program is a curriculum sponsored by the College Board that offers high school students the opportunity to take college-level courses in a high school setting. A student taking an AP course in high school can earn college credit for participation by attaining a certain minimum score on the AP exam in that subject area.

The AP program offers courses in 34 subjects. Although nearly 60 percent of U.S. high schools in the United States offer AP courses, the College Board does not require students to take an AP course before taking an AP exam. AP exams are offered once a year in May. Most of the exams take 2 to 3 hours to complete. The scores for all AP exams range from 1 to 5, with 5 being the highest score. Over 90 percent of the nation's colleges and universities have an AP policy granting incoming students credit, placement, or both, for qualifying AP exam scores.

#### SAT

The Admissions Testing Program of the College Board is made up of a number of college admissions tests, including the Preliminary Scholastic Assessment Test (PSAT) and the Scholastic Assessment Test, now known as the SAT. High school students participate in the testing program as sophomores, juniors, or seniors—some more than once during these 3 years. If they have taken the tests more than once, only the most recent scores are tabulated. The PSAT and SAT report sub-scores in the areas of mathematics and verbal ability.

The SAT results are not representative of high school students or college-bound students nationally, since the sample is self-selected (i.e., taken by students who need the results to apply to a particular college or university). Public colleges in many states, particularly in the Midwest, parts of the South, and the West, require ACT scores rather than SAT scores. The proportion of students taking the SAT in these states is very low and is inappropriate for comparison. In recent years, more than 1.4 million high school students have taken the SAT examination annually. About 3 million students took the examination in 2010. The latest version of the SAT, which includes a writing component, was first administered in March 2005.

Further information on the AP and SAT can be obtained from

College Entrance Examination Board  
45 Columbus Ave.  
New York, NY 10023  
<http://www.collegeboard.org/>



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