STATS IN BRIEF
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First-Generation and Continuing-Generation College Students: A Comparison of High School and Postsecondary Experiences

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Statistics in Brief publications present descriptive data in tabular formats to provide useful information to a broad audience, including members of the general public. They address topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See nces.ed.gov and references noted in the body of this document for more information.

Higher levels of educational

attainment are associated with outcomes such as full-time employment and higher pay for young adults. In 2013, for example, Kena et al. (2015) found that among young adults between the ages of 25 and 34 who had a full-time job, those with a bachelor's degree earned more, on average, than those with a high school diploma ($48,500 vs. $30,000). However, college attainment is unequally distributed among students. Lauff and Ingels (2013) found that among 2002 high school sophomores, 46 percent of students who had a parent with a bachelor's degree and 59 percent who had a parent with a master's degree or higher had obtained a bachelor's degree or higher by 2012, compared to 17 percent of students who had parents with no postsecondary education experience (or "first-generation" college students).

Student persistence through college and borrowing also varies by generation status. First-generation college students were found to be less likely than their continuing-generation peers to persist through the first couple of years of college (Lohfink and Paulsen 2005). DeAngelo and Franke (2016) examined the relationship between college readiness and college retention after the first year of college and found that the relationship between retention and generation status varies depending on college readiness. Among

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students identified as college-ready, first-generation college students were just as likely to return to school after their first year of college as their continuing-generation peers.[1] However, among students who were not college-ready, continuing-generation college students were more likely to return to school after their first year than first-generation college students. Furthermore, first-generation college students take out student loans more often and in higher amounts than their continuing-generation peers in their first year of college (Furquim et al. 2017).

Previous reports from the U.S. Department of Education's National Center for Education Statistics (NCES) have presented findings regarding first-generation college students' experiences. For instance, Warburton, Bugarin, and Nuñez (2001) found that lower percentages of first-generation college students took college entrance examinations, compared to their peers whose parents had postsecondary experience. Another report examined postsecondary outcomes among 12th graders in 1992 and found a 44 percentage point difference in bachelor degree completion between first-generation college students and students with at least one parent with a bachelor's degree or a higher level of educational attainment (24 vs. 68 percent, respectively) (Chen 2005). A more recent report found that higher percentages of first-generation college students took remedial classes upon entering college (Chen 2016). However, updated analyses of longitudinal data are necessary to describe the experiences of first-generation college students as they transition from high school to college.

Using data from a nationally representative cohort of 2002 high school sophomores, this brief provides an updated look at background and educational characteristics (e.g., educational expectations, plans for taking the SAT/ACT,[2] and cumulative high school grade point average [GPA]), planning for college, postsecondary enrollment, and postsecondary completion patterns of two groups of students: first-generation college students and continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment. These descriptions of first-generation college students (students whose parents do not have any postsecondary education experience) offer a portrait of this important group of students and highlight variation within the group. The brief also explores how postsecondary plans, attendance, and completion may vary between first-generation college students and their peers whose parents have college degrees. These comparisons indicate the extent to which first-generation college students differ from students whose parents have a bachelor's degree or a higher level of educational attainment. In addition, the brief presents student-reported information regarding the reasons why some 2002 high school sophomores who were postsecondary enrollees did not obtain a credential by 2012.

DATA, METHODS, AND STRUCTURE OF THE REPORT

This Statistics in Brief utilizes recently released data from the NCES Education Longitudinal Study of 2002 (ELS:2002). ELS:2002 is a longitudinal dataset that is nationally representative of high school sophomores in 2002. Students who participated in ELS:2002 were followed through 2012, 10 years after their sophomore year in high school, with intermediary follow-ups in 2004 (when most of the students were in 12th grade) and 2006. The base-year data collection in 2002 included interviews with parents, students, and school staff, while the 2004, 2006, and 2012 follow-ups included interviews with students.

The analyses in this brief rely on multiple sources of information from ELS:2002. Parent information is used to establish the college generation status of the student and household income. Student data are used to gauge academic expectations, college planning while in high school, educational attainment, first postsecondary institution attended, and barriers to completing a credential. High school transcript data are used to report on student GPAs.

[1] College readiness in this study was defined as students who "have a B+ or better high school GPA and have completed four years of English, three years of math, two years of a foreign language, one year each of biological and physical sciences, plus an additional year of one or the other (in total three years of science), one year of history/government, and one year of arts" (DeAngelo and Franke 2016, p. 1596).

[2] The SAT and ACT are college entrance examinations.

Consistent with prior research, in this brief, first-generation college students are defined as students whose parents both have had no postsecondary education experience and have a high school education or a lower level of educational attainment (Ishitani 2006; Chen 2005). Continuing-generation college students are defined as students who have at least one parent who had some postsecondary education experience. However, this brief focuses on a specific subset of continuing-generation college students, namely those who have at least one parent with a bachelor's degree or a higher level of educational attainment. Each section of findings in the brief presents both a targeted look at first-generation college students and a comparison between first-generation students and their continuing-generation peers. The report's findings are presented as responses to the three study questions outlined later in the brief.

Since the brief focuses on comparisons between first-generation college students and a specific group of continuing-generation college students, the population of interest is 2002 high school sophomores who enrolled in a postsecondary institution by 2012. In the final section of the brief, the analytic focus is narrowed to those 2002 high school sophomores who had enrolled in a postsecondary institution, but had not completed a credential by 2012, when the final ELS:2002 follow-up was conducted.

The comparisons highlighted in the text are statistically significant at the $p < .05$ level. Only statistically significant differences are described in the text of this report. No adjustments were made for multiple comparisons. For additional information about *p* values and the data or methods used in this study, see the **Methodology and Technical Notes** at the end of the report.

College Generation Status

As noted on page 2 of this brief, an earlier NCES report identified a 44 percentage point difference in bachelor's degree completion between first-generation college students and continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment (Chen 2005). Given these large differences, the remainder of the text of the report focuses on the differences between these two groups.

Among those students who enrolled in postsecondary education, this brief compares *first-generation* college students to a specific subset of *continuing-generation* college students.

> *First-generation* college students are students who enrolled in postsecondary education and whose parents do not have any postsecondary education experience.
>
> *Continuing-generation* college students are students who enrolled in postsecondary education and who have at least one parent who had some postsecondary education experience. **This brief focuses specifically on those students with at least one parent with a bachelor's degree or a higher level of educational attainment.**

Additional estimates—for continuing-generation college students who enrolled in postsecondary education and who had at least one parent who had some postsecondary education experience but did not have a bachelor's degree (e.g., students whose parents had a 2-year degree, or those who attended a 4-year institution but did not obtain a degree)—can be found in the tables in appendix A. Readers who are interested in this group of students are encouraged to review these tables. Readers can input these estimates and the associated standard errors in the *t* test formula found in the **Methodology and Technical Notes** at the end of the report to test for "measurable differences."

STUDY QUESTIONS

1 Among 2002 high school sophomores, what percentage of postsecondary enrollees were first-generation college students? How did the background and educational characteristics of the postsecondary enrollees in this cohort vary by college generation status?

2 Among 2002 high school sophomores, how did postsecondary enrollment and completion patterns vary by college generation status?

3 Among those 2002 high school sophomores who enrolled in postsecondary education but did not obtain a credential by 2012, how did the reasons they gave for not obtaining a credential vary by college generation status?

KEY FINDINGS

- Among high school sophomores in 2002 who later went on to enroll at a postsecondary institution, 24 percent were first-generation college students and 42 percent were continuing-generation college students[3] (figure 1).
- A larger percentage of first-generation college students than continuing-generation students came from lower earning households; that is, households making $20,000 or less (27 vs. 6 percent) and $20,001 to $50,000 (50 vs. 23 percent) (figure 2).
- In the 10th grade, a higher percentage of first-generation college students had expected to obtain a bachelor's degree (36 percent) or a master's degree or above (32 percent) than some postsecondary education (13 percent) or a high school diploma or less (8 percent) (figure 3).
- Higher percentages of first-generation college students than continuing-generation college students first attended public postsecondary institutions (76 vs. 72 percent) or private, for-profit institutions (16 vs. 5 percent) (figure 4). Conversely, a lower percentage of first-generation college students than continuing-generation students first attended private, nonprofit institutions (9 vs. 23 percent).
- Ten years after they were sophomores in high school, a lower percentage of first-generation college students than continuing-generation students had obtained a bachelor's degree (20 vs. 42 percent) (figure 5).
- A higher percentage of first-generation college students (54 percent) than continuing-generation students (45 percent) reported they could not afford to continue going to school as a reason for leaving college without a postsecondary credential (figure 6).

[3] Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. This brief focuses on the subset of continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment. Hereafter, "continuing-generation college students" refers specifically to this subgroup of continuing-generation college students.

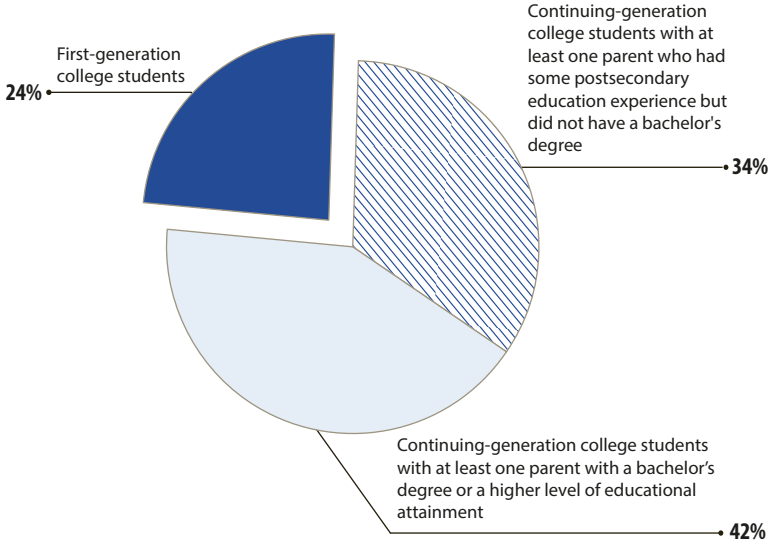
1 Among 2002 high school sophomores, what percentage of postsecondary enrollees were first-generation college students? How did the background and educational characteristics of the postsecondary enrollees in this cohort vary by college generation status?

Among high school sophomores in 2002 who later went on to enroll at a postsecondary institution, 24 percent were first-generation college students, 34 percent were continuing-generation college students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree, and 42 percent were continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment (see figure 1).[4,5]

The findings presented in response to study question 1 use students' background and educational characteristics to create a portrait of the 2002 high school sophomore cohort and to examine differences between first-generation college students and their continuing-generation peers (i.e., college students who have at least one parent with a bachelor's degree or a higher level of educational attainment).

FIGURE 1.

Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status: 2012



NOTE: First-generation college students are students whose parents do not have any postsecondary education experience.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Two sets of findings—on students' background characteristics and on their educational characteristics—are included in this section.

[4] As noted in the "College Generation Status" box on page 3, this report focuses on first-generation college students and continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment. The tables in the appendix of this report also present estimates for continuing-generation college students who had at least one parent who had some postsecondary education experience but did not have a bachelor's degree.
[5] This brief specifically looks at students who enrolled in postsecondary education. For comparison, among 2002 high school sophomores with no postsecondary enrollment, approximately 49 percent had parents who did not have any postsecondary education experience, 35 percent had parents with some college, 11 percent had parents with a bachelor's degree, and 6 percent had parents with a master's degree or higher (Lauff and Ingels 2015).

Background Characteristics

First-Generation College Students

In 2012, the highest percentage of first-generation college students were White, followed by Hispanic, Black, students of other races, and Asian (though there was no measurable difference between the percent of Asian students and students of other races) (figure 2). In addition, a higher percentage of such students were native speakers of English (78 percent) than of any other language. Finally, a higher percentage of these students came from households that earned between $20,001 and $50,000 in 2002 (50 percent) than from households in any other income range.

Differences Between First-Generation and Continuing-Generation College Students

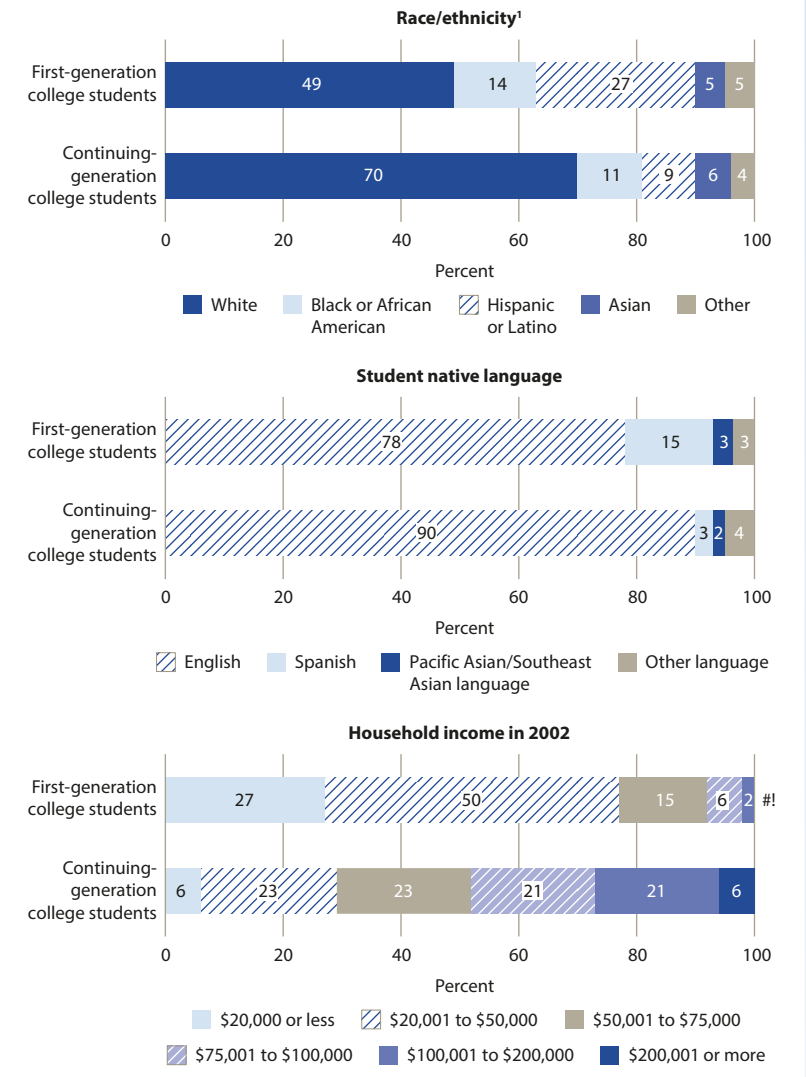
Race/ethnicity. A lower percentage of first-generation college students than continuing-generation students were White (49 vs. 70 percent). However, among Black and Hispanic students, the pattern was reversed. Black students represented 14 percent of first-generation college students, compared to 11 percent of continuing-generation college students, and Hispanic students represented 27 percent of first-generation college students, compared to 9 percent of continuing-generation students.

Native language. A lower percentage of first-generation college students than continuing-generation students were native English speakers (78 vs. 90 percent). Conversely, a higher percentage of first-generation than continuing-generation students were native Spanish speakers (15 vs. 3 percent).

Household income in 2002. Compared to their continuing-generation peers, a larger percentage of first-generation college students came from lower earning households: that is, households that made $20,000 or less (27 vs. 6 percent) and $20,001 to $50,000 (50 vs. 23 percent). Conversely, a lower percentage of first-generation college students came from households in the three highest income categories (over $75,001).

FIGURE 2.

College generation status of spring 2002 high school sophomores with subsequent postsecondary enrollment, by race/ethnicity, native language, and household income: 2012



Rounds to zero.

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

[1] All race categories exclude Hispanic or Latino origin, unless specified. "Other" includes American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and students of Two or more races.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. Continuing-generation students whose parents had some postsecondary education but did not have a bachelor's degree are excluded from this figure.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Educational Characteristics

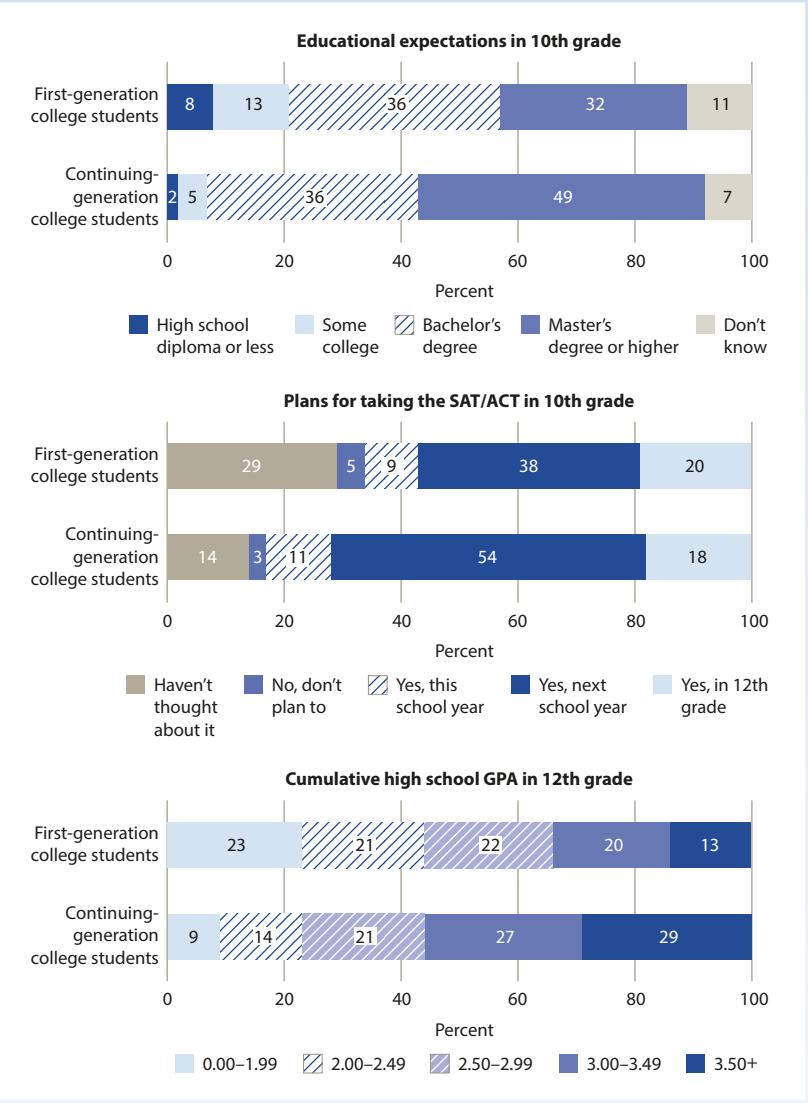
First-Generation College Students

A higher percentage of first-generation college students had expected to obtain a bachelor's degree (36 percent) or a master's degree or above (32 percent) than some postsecondary education (13 percent) or a high school diploma or less (8 percent) (figure 3).

In the tenth grade, students were asked about their plans for taking the SAT or ACT in the next two years. Students could answer "I haven't thought about it;" "No, I don't plan to;" "Yes, this school year" (i.e., in 10th grade); "Yes, next school year" (i.e., in 11th grade); or "Yes, in 12th grade." Some 29 percent of first-generation college students had not thought about taking the SAT/ACT, and 5 percent had no plans to take it, compared to 9 percent of first-generation college students who planned to take the SAT/ACT in the 10th grade, 38 percent in the 11th grade, and 20 percent in grade the 12th grade. Despite their expectations for postsecondary degree attainment, a lower percentage of first-generation college students (13 percent) had a cumulative high school GPA in the highest category (above 3.5) than in any of the lower categories (i.e., 3.00–3.49; 2.50–2.99; 2.00–2.49; and 0.00–1.99).

FIGURE 3.

College generation status of spring 2002 high school sophomores with subsequent postsecondary enrollment, by educational expectations, plans for taking the SAT/ACT, and high school GPA: 2012



NOTE: GPA = grade point average. First-generation college students are students whose parents do not have any postsecondary education experience. Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. Continuing-generation students whose parents had some postsecondary education but did not have a bachelor's degree are excluded from this figure. 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), Third Follow-up, 2012. Restricted-Use Data File.

Differences Between First-Generation and Continuing-Generation College Students

Educational expectations. Thirty-six percent of both first-generation and continuing-generation college students had reported in their 10th grade year that they expected to obtain a bachelor's degree (figure 3). In contrast, 32 percent of first-generation college students expected to obtain a master's degree or above, compared to 49 percent of continuing-generation college students. A higher percentage of first-generation college students than continuing-generation students expected to obtain some postsecondary education, but not complete a bachelor's degree (13 vs. 5 percent). Also, a higher percentage had not yet formed any educational expectations (11 vs. 7 percent).

Plans for taking the SAT/ACT. Differences between first-generation and continuing-generation college students also emerged with respect to their plans for taking the SAT/ACT when they were high school sophomores (figure 3). Higher percentages of first-generation college students than continuing-generation students said that they had not thought at all about taking the SAT/ACT in the 10th grade and that they did not plan to take the SAT/ACT (29 vs. 14 percent and 5 vs. 3 percent, respectively). A lower percentage said that they planned to take it in the 11th grade (38 vs. 54 percent). There were no measurable differences in the percentages of first-generation college students and continuing-generation college students who planned to take the SAT/ACT in the 10th grade or in the 12th grade.

High school GPA. Differences in high school GPA by college generation status also existed (figure 3). Twenty-three percent of first-generation college students had a GPA of 1.99 or lower compared to 9 percent of continuing-generation students who had a GPA of 1.99 or lower. Additionally, the percentage of first-generation college students who had a GPA between 2.00 and 2.49 (21 percent) was higher than the corresponding percentage of continuing-generation college students (14 percent). Conversely, a lower percentage had a GPA of 3.0 or above. For instance, 20 percent of first-generation college students had a GPA between 3.00 and 3.49, compared to 27 percent of continuing-generation college students. Additionally, the percentage of first-generation college students with a GPA of 3.50 or higher (13 percent) was lower than the percentage of continuing-generation college students with a GPA of 3.50 or higher (29 percent).

2 Among 2002 high school sophomores, how did postsecondary enrollment and completion patterns vary by college generation status?

The findings reported in response to study question 2 provide an overview of the postsecondary experiences of the students in the 2002 high school sophomore cohort as of 2012. This section reveals differences in the college completion and enrollment patterns of the first-generation and continuing-generation college students (i.e., college students who have at least one parent with a bachelor's degree or a higher level of educational attainment) in the cohort as well as in the types and selectivity of the institutions they attended (figures 4 and 5).

First-Generation College Students

Approximately three-quarters (76 percent) of first-generation college students first attended public postsecondary institutions (figure 4). Additionally, 52 percent of such students first enrolled in 2-year institutions, where selectivity was not classified, whereas 16 percent attended moderately selective 4-year institutions and 6 percent attended highly selective 4-year institutions.[6]

Over half (58 percent) of first-generation college students first enrolled at a postsecondary institution within 3 months of high school completion, compared to 15 percent of such students who first enrolled between 4 and 12 months, and 27 percent who first enrolled 13 months or more (figure 5). By 2012, 47 percent of first-generation college students had some post-secondary enrollment but had not obtained a postsecondary credential. This percentage was higher than the percentages of such students who received an undergraduate certificate (17 percent), an associate's degree (13 percent), a bachelor's degree (20 percent), or a master's degree or higher (3 percent). However, a higher percentage had obtained a bachelor's degree (20 percent) than had obtained an undergraduate certificate (17 percent), an associate's degree (13 percent), or a master's degree or above (3 percent).

[6] Selectivity categories are based on 2010 Carnegie classifications. "Highly selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the top fifth of baccalaureate institutions; "moderately selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the middle two-fifths of baccalaureate institutions; and "inclusive" 4-year institutions either did not report postsecondary entrance test score data, or their scores indicate that they extend educational opportunity to a wide range of students with respect to academic preparation and achievement; selectivity not classified, 4-year institutions refer to those with unknown Carnegie selectivity. Selectivity ratings only apply to 4-year institutions.

Differences Between First-Generation and Continuing-Generation College Students

Types of Institutions First Attended

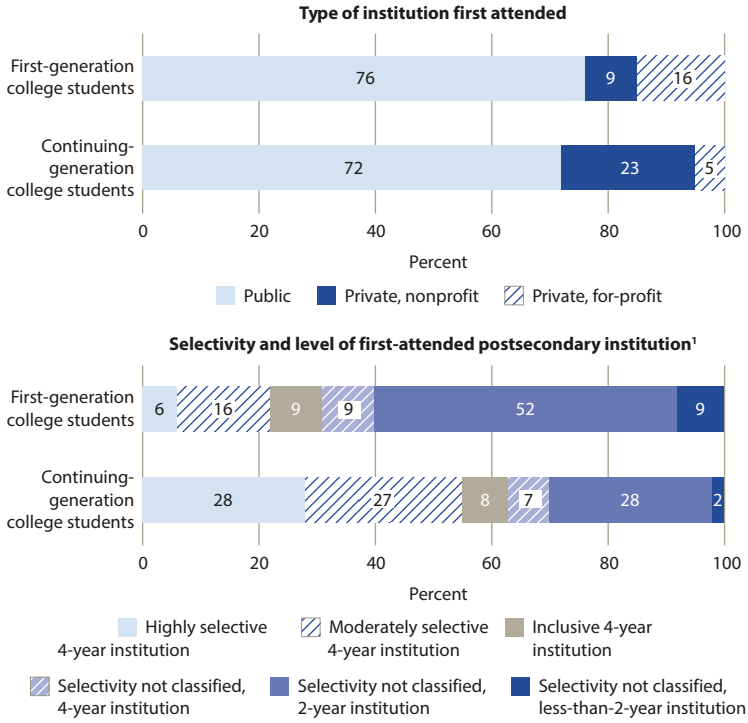
Higher percentages of first-generation college students than continuing-generation college students first attended public postsecondary institutions (76 vs. 72 percent) or private, for-profit institutions (16 vs. 5 percent) (figure 4). Conversely, a lower percentage of first-generation college students than continuing-generation students first attended private, nonprofit institutions (9 vs. 23 percent).

Institutional Selectivity

A lower percentage of first-generation college students than continuing-generation students first attended highly selective 4-year institutions (6 vs. 28 percent) and moderately selective 4-year institutions (16 vs. 27 percent). Conversely, a higher percentage of first-generation college students than continuing-generation students attended 2-year institutions (52 vs. 28 percent).

FIGURE 4.

College generation status of spring 2002 high school sophomores with subsequent postsecondary enrollment, by type of institution first attended and selectivity and level of first-attended postsecondary institution: 2012



[1] Selectivity categories are based on 2010 Carnegie classifications. "Highly selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the top fifth of baccalaureate institutions; "moderately selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the middle two-fifths of baccalaureate institutions; and "inclusive" 4-year institutions either did not report postsecondary entrance test score data, or their scores indicate that they extend educational opportunity to a wide range of students with respect to academic preparation and achievement; selectivity not classified, 4-year institutions refer to those with unknown Carnegie selectivity. Selectivity ratings only apply to 4-year institutions.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. Continuing-generation students whose parents had some postsecondary education but did not have a bachelor's degree are excluded from this figure. 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), Third Follow-up, 2012. Restricted-Use Data File.

Timing of First Postsecondary Enrollment

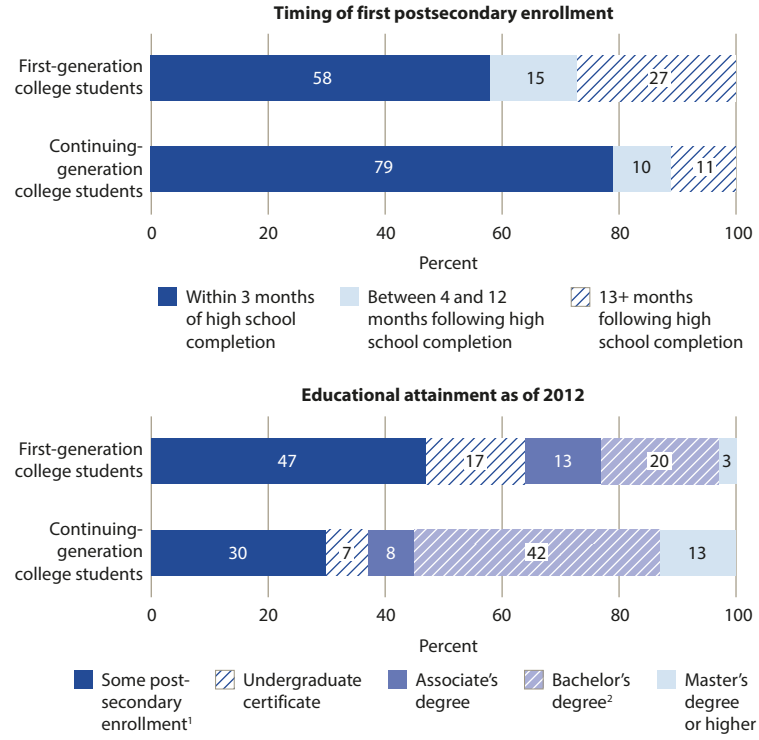
A lower percentage of first-generation college students than continuing-generation students first enrolled in postsecondary institutions within 3 months of high school completion (58 vs. 79 percent). Conversely, higher percentages of first-generation college students than continuing-generation students first enrolled between 4 and 12 months of high school completion (15 vs. 10 percent) or enrolled 13 or more months after high school completion (27 vs. 11 percent).

Educational Attainment

Ten years after they were sophomores in high school, a lower percentage of first-generation college students than continuing-generation students had obtained either a bachelor's degree (20 vs. 42 percent) or a master's degree or higher (3 vs. 13 percent). Conversely, a higher percentage of first-generation college students than continuing-generation students had obtained some postsecondary education, but had not completed a postsecondary credential (47 vs. 30 percent), an undergraduate certificate (17 vs. 7 percent), or an associate's degree (13 vs. 8 percent).

FIGURE 5.

College generation status of spring 2002 high school sophomores with subsequent postsecondary enrollment, by timing of first postsecondary enrollment and educational attainment as of 2012: 2012



[1] Some postsecondary enrollment, but no postsecondary credential.

[2] Includes those whose highest level of education is a postbaccalaureate certificate.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. Continuing-generation students whose parents had some postsecondary education but did not have a bachelor's degree are excluded from this figure. 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), Third Follow-up, 2012. Restricted-Use Data File.

3 Among those 2002 high school sophomores who enrolled in post-secondary education but did not obtain a credential by 2012, how did the reasons they gave for not obtaining a credential vary by college generation status?

The findings for study question 2 showed that a higher percentage of first-generation college students than continuing-generation students had obtained some postsecondary education, but had not completed a postsecondary credential (47 vs. 30 percent). The findings reported in response to study question 3 investigate the reasons cited by postsecondary enrollees in the cohort of 2002 sophomores for not obtaining a postsecondary credential. These analyses provide insight into potential barriers to students' attainment of postsecondary degrees. The analytic focus narrows to those 2002 sophomores who had enrolled in postsecondary education but had not obtained a postsecondary credential by 2012, when the last ELS:2002 follow-up was conducted.

First-Generation College Students

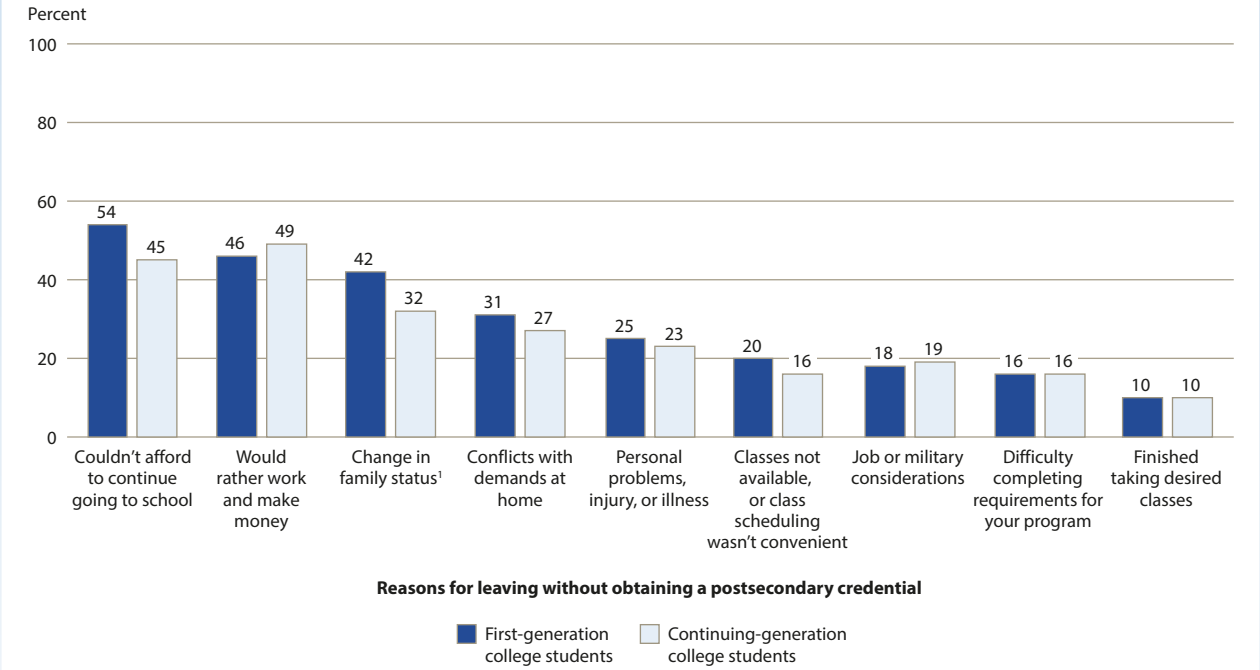
Fifty-four percent of first-generation college students without a postsecondary credential said that they had not obtained a postsecondary credential by 2012 because they could not afford to continue going to school, compared to 42 percent who cited a change in their family status;[7] 31 percent who cited conflicts with demands at home; 25 percent who said it was due to personal problems, injury, or illness; 20 percent who reported that classes were not available or class scheduling wasn't convenient; 18 percent who cited job or military considerations; 16 percent who left because of difficulty completing requirements for their program; and 10 percent who said that they had finished taking the desired classes (figure 6).[8]

[7] Examples of changes in family status include a marriage, baby, or death in the family.

[8] There was no measurable difference between students who said they could not afford to continue going to school and students who said they would rather work and make money.

FIGURE 6.

College generation status of spring 2002 high school sophomores with subsequent postsecondary enrollment who left school without obtaining a postsecondary credential, by reasons for leaving: 2012



[1] Examples of changes in family status include a marriage, baby, or death in the family.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. Continuing-generation college students are students who have at least one parent who had some postsecondary education experience. Continuing-generation students whose parents had some postsecondary education but did not have a bachelor's degree are excluded from this figure. Respondents were able to answer "Yes" for more than one reason for leaving without obtaining a postsecondary credential.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Differences Between First-Generation and Continuing-Generation College Students

Differences between first-generation college students and their continuing-generation peers (i.e., college students who have at least one parent with a bachelor's degree or a higher level of educational attainment) emerged with respect to the reasons they cited for not obtaining a postsecondary credential by 2012. Compared to continuing-generation college students, a higher percentage of first-generation college students said they had not obtained a credential because they could not afford to continue going to school (54 vs. 45 percent). In addition, 42 percent of first-generation college students cited a change in family status as a reason for leaving, compared to 32 percent of continuing-generation college students. There were no other measurable differences between first-generation and continuing-generation students regarding reasons for leaving without obtaining a postsecondary credential.

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http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018009

More detailed information on students' high school and postsecondary experiences can be found in the following publications produced by the National Center for Education Statistics (NCES):

Chen, X. (2005). *First-Generation Students in Postsecondary Education: A Look at Their College Transcripts* (NCES 2005-171). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Lauff, E., and Ingels, S.J. (2015). *Education Longitudinal Study of 2002 (ELS:2002): A First Look at the Postsecondary Transcripts of 2002 High School Sophomores* (NCES 2015-034). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

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METHODOLOGY AND TECHNICAL NOTES

Design and Purposes of the Education Longitudinal Study of 2002

The Education Longitudinal Study of 2002 (ELS:2002) is the fourth in a series of secondary school longitudinal surveys sponsored by the National Center for Education Statistics (NCES).[9] All of these studies monitor the transition of national samples of young people from their high school years through various postsecondary experiences, such as further education, participation in the workforce, and the assumption of other adult roles. ELS:2002 tracks these critical transitions for two analysis cohorts: 2002 high school sophomores and 2004 high school seniors. The analyses in this brief focus on 2002 high school sophomores who went on to enroll at a postsecondary institution.

Instrumentation

In the high school years, ELS:2002 is an integrated multilevel survey involving multiple respondent populations. Base-year surveys were administered in 2002, including separate questionnaires for students, their parents, their teachers, school administrators, and librarians. The base-year data collection also included student assessments in math and reading, as well as a facilities checklist.

The first follow-up was conducted in 2004, when base-year students were surveyed regardless of whether they were still in their base-year school, had transferred to a new school, or were out of school. High school-based data collections concluded in 2005, when high school transcripts were requested (from schools) and processed for each sample member, regardless of the sample member's high school completion status.

In addition to the high school survey components, follow-up surveys were also administered during the sample members' postsecondary years: the second follow-up was conducted in 2006 (approximately 2 years after the sample's modal high school graduation date), and the third follow-up was conducted in 2012 (when the majority of the sample was approximately 26 years old). Information about cohort members was also collected from extant data sources such as the American Council on Education (General Educational Development test [GED] data), the U.S. Department of Education Central Processing System (financial aid data), and the SAT/ACT (postsecondary entrance exam scores). Finally, postsecondary transcripts were collected during 2013–14, and the resulting data were made available subsequent to the third follow-up data release.

The ELS:2002 third follow-up questionnaire was designed for electronic web-based self-administration or computer-assisted interviewer administration (i.e., by computer-assisted telephone interview or computer-assisted personal interview). The third follow-up questionnaire included topics related to current labor market and educational status, high school completion, postsecondary education, the college experience, education finance, educational expectations, employment and income, family formation, life values, and additional topics.

Questionnaires for each round of data collection are available at the ELS:2002 home page on the NCES website (http://nces.ed.gov/surveys/els2002/).

Sample Design

The ELS:2002 base-year sample design began with a nationally representative, two-stage stratified probability sample. The first stage of selection was schools, which were selected with probability proportional to size. The public school sample was stratified by the nine U.S. Census divisions and by location (metropolitan status of urban, suburban, or rural). Private schools (Catholic and other private) were stratified by four levels of geography (Census regions) and three of location (urbanicity); private schools were oversampled. The target sample size was 800 schools. Cooperation was sought from 1,221 eligible schools. The realized sample consisted of 752 participating 10th-grade schools (68 percent participation rate). The second stage of selection was students. Of 17,591 eligible sampled students in the schools, 15,362 students participated, with some groups (e.g., Asians, students in nonpublic schools) oversampled. The weighted student response rate was 87 percent.

[9] The first three surveys in the series are the National Longitudinal Study of 1972, High School and Beyond, and the National Education Longitudinal Study of 1988. A fifth survey, the High School Longitudinal Study of 2009, is also part of the series.

Base-year schools were again invited to participate in the first follow-up, as were base-year sophomore respondents (and a sample of base-year nonrespondents), regardless of whether they remained in their base-year school or had transferred to another school. Overall, there were 16,515 sample members (students, dropouts, homeschooled students, and early graduates), of whom 14,989 participated.

In autumn 2004, high school transcripts were requested for all sample members who participated in at least one of the first two student interviews (i.e., the base-year interview or the first follow-up interview). Further information about the transcript component may be found in Bozick et al. (2006), available to licensed users of the transcript data.

The basis for the ELS:2002 second follow-up sampling frame was the sample of 10th-grade students selected in the base-year study in 2002. The second follow-up included all first follow-up eligible sample members except deceased students, students who were determined to be ineligible for the study in prior rounds, and sample members who were out of scope in the first follow-up study. Out-of-scope sample members include individuals who had not responded in any prior round, prior-round respondents who were incarcerated or out of the country, and prior-round study refusals. Eligible sample members who had not responded in the base year and the first follow-up were not fielded for the second follow-up. For additional details, see the *ELS:2002 Base-Year to Second Follow-up Data File Documentation* (Ingels et al. 2007).

No additional sampling was performed for the third follow-up. The target populations for the third follow-up were the same as those for the first and second follow-ups; namely, those students who were enrolled in the 10th grade in 2002.

Response Rates

Response rates for ELS:2002 were calculated by dividing the number of sample members who completed a particular study component by the number of sample members eligible for participation. For each round of data collection, nonresponse bias analyses were performed to ensure that any identified biases because of nonresponse were small or that adjustments were made to account for them.

Base-year school and student questionnaire response rates. As noted in the discussion of sample design, the weighted school participation rate was 68 percent and the weighted student response rate was 87 percent. For further information on the base-year data collection results, see the *ELS:2002 Base-Year Data File User's Manual* (Ingels et al. 2004).

First follow-up student questionnaire response rate. In the first follow-up, there were 16,515 eligible sample members; a total of 14,989 sample members responded to the questionnaire for a response rate of 89 percent. For further information on the first follow-up data collection results, see the *ELS:2002 Base-Year to First Follow-up Data File Documentation* (Ingels et al. 2005).

High school transcript response rate. A total of about 1,500 base-year and transfer schools provided at least one transcript for sample members. There is transcript information for 91 percent (weighted) of the student sample (14,916 of 16,373). For further information on the results of the high school transcript data collection, see the *ELS:2002 First Follow-up Transcript Component Data File Documentation* (Bozick et al. 2006).

Second follow-up response rate. A total of 14,159 sample members (of 15,892 who were eligible) responded to the second follow-up interview, for a weighted response rate of 88 percent overall. For further information on the second follow-up data collection results, see the *ELS:2002 Base-Year to Second Follow-up Data File Documentation* (Ingels et al. 2007).

Third follow-up response rate. A total of 13,250 sample members (of 15,724 who were eligible) responded to the third follow-up interview, for a weighted response rate of 84 percent. For further information on third follow-up data collection results, see the *ELS:2002 Third Follow-up Data File Documentation* (Ingels et al. 2014).

Nonresponse Bias Analysis

Nonresponse bias analyses were conducted to determine whether unit nonresponse from any of the data sources significantly increased the estimated bias for population estimates. Information on the procedures for evaluating nonresponse bias—and on the results—can be found in the *ELS:2002 Third Follow-up Data File Documentation* (Ingels et al. 2014). For further information on nonresponse bias analyses conducted in previous rounds of ELS:2002, see the *ELS:2002 Base-Year to Second Follow-up Data File Documentation* (Ingels et al. 2007); the *ELS:2002 Base-Year to First Follow-up Data File Documentation* (Ingels et al. 2005); the *ELS:2002 First Follow-up Transcript Component Data File Documentation* (Bozick et al. 2006); and the *ELS:2002 Base Year Data File User's Manual* (Ingels et al. 2004).

Imputation

In the base-year study, the first follow-up, and the third follow-up, missing questionnaire data for 14 key demographic variables, such as race/ethnicity and parental education, were replaced with imputed values. One of these variables (F3ATTAINMENT, or highest level of education attained as of the third follow-up interview) is used in this report. In addition, one variable used in this report—parent's highest level of education (F1PARED)—was not directly imputed but was constructed from input variables that were imputed.

Definition of Key Analytic Variable

F3ATTAINMENT (highest level of education attained as of the third follow-up interview) was the variable used to select students who went on to enroll in a postsecondary institution. The key variable used in this report categorizes students as "first-generation college students," "continuing-generation college students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree," or "continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment." Information to create this variable came from F1PARED (parent's highest level of education). First-generation college students are students whose parents reported that they "did not finish high school," "graduated from high school," or "obtained a GED." Continuing-generation college students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree are students with at least one parent that "attended a 2-year school (such as a vocational or technical school, junior college, or a community college), no degree," "graduated from a 2-year school (such as a vocational or technical school, junior college, or a community college)," or "attended college, no 4-year degree." Continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment are students whose parents reported that they "graduated from college," "completed a master's degree or equivalent," or "completed a Ph.D., M.D., or other advanced degree." Students who had at least some postsecondary attendance and whose parents do not have any postsecondary education experience were categorized as "first-generation college students." The three college student categories used in this brief are mutually exclusive. Students whose educational attainment as of the third follow-up interview was a high school degree or less are excluded from all analyses.

Weighting and Variance Estimation

The general purpose of the weighting scheme in the base year was to compensate for the unequal probabilities of selection of schools and students into the base-year sample and to adjust for the fact that not all schools and students selected into the sample actually participated.

The analyses in this report use the F3BYTSCWT weight.[10] F3BYTSCWT is a third follow-up high school transcript panel weight for sample members who responded in the third follow-up and in the base year and for whom a high school transcript was collected in the first follow-up transcript study (F3BYTSCWT).

[10] Readers interested in learning more about the weighting scheme should refer to the ELS:2002 data file user's manuals: Ingels et al. 2004, 2005, 2007, and 2014.

In surveys with complex sample designs, direct estimates of sampling errors that assume a simple random sample will typically underestimate the variability in the estimates. Because the ELS:2002 sample design involved stratification, the disproportionate sampling of certain strata, and clustered (i.e., multistage) probability sampling, the resulting statistics are more variable than they would have been if they had been based on data from a simple random sample of the same size. Several procedures are available for calculating precise estimates of sampling errors for complex samples. The analyses included in this report used the balanced repeated replication procedure to calculate standard errors.

Statistical Procedures in This Report

Comparisons made in the text were tested for statistical significance at the $p < .05$ level to ensure that the differences were larger than might be expected due to sampling variation. When comparing estimates between categorical groups (e.g., race/ethnicity, college generation status), *t* statistics were calculated. The following formula was used to compute the *t* statistic:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where E_1 and E_2 are the estimates to be compared (e.g., the means of sample members in two groups), and se_1 and se_2 are their corresponding standard errors. Thus, if E_1 represents the 49 percent of first-generation college students who are White, with a standard error of 1.7, and E_2 represents the 70 percent of continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment who are White, with a standard error of 1.1, the *t* value is equal to -10.4.

The decision rule is to reject the null hypothesis (e.g., the hypothesis that there is no statistical difference between the two groups) if there is a measurable difference between the two groups in the population in terms of the percentage having the characteristic, if $|t| > t$, where *t* is the value such that the probability that a Student's *t* random variable with df degrees of freedom exceeds that value is α/2. All tests in this report are based on a significance level of .05 (i.e., α = 0.05). When the degrees of freedom are large, greater than 120, $t_{0.025;df} \approx 1.96$. In the example above, the *t* value is large enough for the null hypothesis to be rejected (|-10.4| > 1.96), so we conclude that there is a measurable difference between the percentage of first-generation college students who are White and the percentage of continuing-generation college students with at least one parent with a bachelor's degree or a higher level of educational attainment who are White.

For comparisons within generation status groups for research question 3 (i.e., the section titled "First-Generation College Students"), where first-generation college students fall into categories that are not mutually exclusive, the *t* statistic for dependent samples was computed using the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{(se_1^2 + se_2^2) + 2(se_1)(se_2)}}$$

where E_1 and E_2 are the estimates to be compared (e.g., the means of sample members in two groups), and se_1 and se_2 are their corresponding standard errors.

No adjustments were made for multiple comparisons. It is important to note that many of the variables examined in this report may be related to one another and to other variables not included in the analyses. The complex interactions and relationships among the variables were not fully explored and warrant more extensive analysis. Furthermore, the variables examined in this report are just a few of those that could be examined. Readers are cautioned not to draw causal inferences based on the results presented.

The coefficient of variation (CV) represents the ratio of the standard error to the estimate. The CV is an important measure of the reliability and accuracy of an estimate. In this report, the CV was calculated for all estimates. If any standard errors were between 30 and 50 percent of the estimate, estimates would be noted with a "!" symbol (interpret with caution) in tables; estimates with a standard error greater than 50 percent would be suppressed and noted as "reporting standards not met."

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APPENDIX A: DATA TABLES

Table A-1. Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status: 2012

	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Total	**24**	**34**	**42**

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Table A-2. Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected student characteristics: 2012

	College generation status		
		Continuing-generation college students	
Student characteristics	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Race/ethnicity[1]			
White	49	61	70
Black or African American	14	17	11
Hispanic or Latino	27	14	9
Asian	5	2	6
Other	5	6	4
Native language			
English	78	90	90
Spanish	15	6	3
Pacific Asian/Southeast Asian language	3	1	2
Other language	3	3	4
Household income in 2002			
$20,000 or less	27	12	6
$20,001 to $50,000	50	43	23
$50,001 to $75,000	15	26	23
$75,001 to $100,000	6	12	21
$100,001 to $200,000	2	6	21
$200,001 or more	# !	1	6

See notes at end of table.

Table A-2. Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected student characteristics: 2012—Continued

Student characteristics	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Students' educational expectation in 10th grade			
High school diploma or less	8	5	2
Some college	13	10	5
Bachelor's degree	36	40	36
Master's degree or higher	32	36	49
Don't know	11	9	7
Taken SAT/ACT by 10th grade			
Haven't thought about it	29	22	14
No, don't plan to	5	5	3
Yes, this school year	9	10	11
Yes, next school year	38	42	54
Yes, in 12th grade	20	21	18
Cumulative high school GPA in 12th grade			
0.00–1.99	23	18	9
2.00–2.49	21	20	14
2.50–2.99	22	24	21
3.00–3.49	20	22	27
3.50+	13	16	29

Rounds to zero.

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

[1] All race categories exclude Hispanic or Latino origin, unless specified. "Other" includes American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and students of Two or more races.

NOTE: GPA = grade point average. First-generation college students are students whose parents do not have any postsecondary education experience. 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), Third Follow-up, 2012. Restricted-Use Data File.

Table A-3. Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected characteristics of their initial postsecondary enrollment and educational attainment as of 2012: 2012

Characteristic	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Timing of first postsecondary enrollment			
Within 3 months of high school completion	58	63	79
Between 4 and 12 months following high school completion	15	16	10
13+ months following high school completion	27	21	11
Type of institution first attended			
Public	76	77	72
Private, nonprofit	9	13	23
Private, for-profit	16	10	5
Selectivity and level of first-attended postsecondary institution[1]			
Highly selective 4-year institution	6	10	28
Moderately selective 4-year institution	16	21	27
Inclusive 4-year institution	9	10	8
Selectivity not classified, 4-year institution	9	8	7
Selectivity not classified, 2-year institution	52	46	28
Selectivity not classified, less-than-2-year institution	9	5	2
Educational attainment as of 2012			
Some postsecondary enrollment[2]	47	44	30
Undergraduate certificate	17	14	7
Associate's degree	13	11	8
Bachelor's degree[3]	20	26	42
Master's degree or higher	3	5	13

[1] Selectivity categories are based on 2010 Carnegie classifications. "Highly selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the top fifth of baccalaureate institutions; "moderately selective" 4-year institutions refer to those whose first-year students' postsecondary entrance test scores place them in roughly the middle two-fifths of baccalaureate institutions; and "inclusive" 4-year institutions either did not report postsecondary entrance test score data or their scores indicate that they extend educational opportunity to a wide range of students with respect to academic preparation and achievement.

[2] Some postsecondary enrollment, but no postsecondary credential.

[3] Includes those whose highest level of education is a postbaccalaureate certificate.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. 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), Third Follow-up, 2012. Restricted-Use Data File.

Table A-4. Percentage of spring 2002 high school sophomores with subsequent postsecondary enrollment who left school without obtaining a postsecondary credential, by college generation status and reasons for leaving: 2012

Reasons for leaving school without obtaining a postsecondary credential	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Finished taking desired classes	10	10	10
Couldn't afford to continue going to school	54	53	45
Would rather work and make money	46	48	49
Change in family status[1]	42	37	32
Personal problems, injury, or illness	25	22	23
Conflicts with demands at home	31	23	27
Difficulty completing requirements for your program	16	15	16
Classes not available, or class scheduling wasn't convenient	20	16	16
Job or military considerations	18	18	19

[1] Examples of changes in family status include a marriage, baby, or death in the family.

NOTE: First-generation college students are students whose parents do not have any postsecondary education experience. Respondents were able to answer "Yes" for more than one reason for leaving without obtaining a postsecondary credential.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

APPENDIX B: STANDARD ERROR TABLES

Table B-1. Standard errors for table A-1: Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status: 2012

	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Total	**0.7**	**0.6**	**0.9**

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Table B-2. Standard errors for table A-2: Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected student characteristics: 2012

	College generation status		
		Continuing-generation college students	
Student characteristics	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Race/ethnicity			
White	1.7	1.3	1.1
Black or African American	1.2	1.0	0.8
Hispanic or Latino	1.6	0.9	0.7
Asian	0.5	0.3	0.5
Other	0.7	0.5	0.4
Native language			
English	1.5	0.8	0.7
Spanish	1.5	0.6	0.4
Pacific Asian/Southeast Asian language	0.4	0.2	0.3
Other language	0.5	0.4	0.4
Household income in 2002			
$20,000 or less	1.2	0.8	0.5
$20,001 to $50,000	1.4	1.2	0.8
$50,001 to $75,000	1.1	1.1	0.9
$75,001 to $100,000	0.7	0.8	0.9
$100,001 to $200,000	0.3	0.5	0.7
$200,001 or more	0.2	0.2	0.6

See notes at end of table.

Table B-2. Standard errors for table A-2: Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected student characteristics: 2012—Continued

Student characteristics	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Students' educational expectation in 10th grade			
High school diploma or less	0.8	0.5	0.3
Some college	1.0	0.7	0.5
Bachelor's degree	1.3	1.2	1.1
Master's degree or higher	1.4	1.1	1.0
Don't know	0.9	0.7	0.5
Taken SAT/ACT by 10th grade			
Haven't thought about it	1.2	1.0	0.7
No, don't plan to	0.7	0.5	0.4
Yes, this school year	0.8	0.7	0.7
Yes, next school year	1.5	1.3	1.1
Yes, in 12th grade	1.3	0.9	0.8
Cumulative high school GPA in 12th grade			
0.00–1.99	1.4	1.1	0.7
2.00–2.49	1.1	1.0	0.7
2.50–2.99	1.2	1.0	0.8
3.00–3.49	1.2	0.9	0.9
3.50+	0.9	0.8	1.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Table B-3. Standard errors for table A-3: Percentage distribution of spring 2002 high school sophomores with subsequent postsecondary enrollment, by college generation status and selected characteristics of their initial postsecondary enrollment and educational attainment as of 2012: 2012

Characteristic	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Timing of first postsecondary enrollment			
Within 3 months of high school completion	1.6	1.4	1.0
Between 4 and 12 months following high school completion	1.1	1.0	0.8
13+ months following high school completion	1.4	1.1	0.7
Type of institution first attended			
Public	1.4	0.9	1.0
Private, nonprofit	0.8	0.8	1.0
Private, for-profit	1.2	0.7	0.5
Selectivity and level of first-attended postsecondary institution			
Highly selective 4-year institution	0.6	0.6	1.3
Moderately selective 4-year institution	1.0	1.0	1.0
Inclusive 4-year institution	0.8	0.7	0.7
Selectivity not classified, 4-year institution	0.9	0.7	0.6
Selectivity not classified, 2-year institution	1.5	1.4	1.3
Selectivity not classified, less-than-2-year institution	0.9	0.6	0.3
Educational attainment as of 2012			
Some postsecondary enrollment	1.2	1.1	1.1
Undergraduate certificate	1.0	0.7	0.5
Associate's degree	0.9	0.7	0.6
Bachelor's degree	1.0	1.0	1.1
Master's degree or higher	0.5	0.5	0.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.

Table B-4. Standard errors for table A-4: Percentage of spring 2002 high school sophomores with subsequent postsecondary enrollment who left school without obtaining a postsecondary credential, by college generation status and reasons for leaving: 2012

Reasons for leaving school without obtaining a postsecondary credential	College generation status		
		Continuing-generation college students	
	First-generation college students	College students with at least one parent who had some postsecondary education experience but did not have a bachelor's degree	College students with at least one parent with a bachelor's degree or a higher level of educational attainment
Finished taking desired classes	1.6	1.4	1.5
Couldn't afford to continue going to school	2.5	2.4	2.6
Would rather work and make money	2.5	2.3	3.3
Change in family status	2.3	2.1	2.3
Personal problems, injury, or illness	2.3	1.8	2.2
Conflicts with demands at home	2.8	1.8	2.5
Difficulty completing requirements for your program	2.0	1.6	1.8
Classes not available, or class scheduling wasn't convenient	2.1	1.5	1.9
Job or military considerations	1.8	1.6	2.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS:2002), Third Follow-up, 2012. Restricted-Use Data File.